



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)

BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, Florida
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208

Miami, Florida 33175-2474

T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/pera/

Marvin Windows and Doors

Highway 11 West,

P. O. Box 100

Warroad, MN 56763-0100

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION:

Series "French Storm Plus I-Z4" 8'-0" Aluminum Clad Wood Outswing Glazed Doors - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1487, titled Series "8 Ft. Aluminum Clad Out-Swing Wood Impact Doors", sheets 1 through 11 of 11, dated 08/17/2006 with revision "A1", dated 10/17/2011, prepared by W. W. Schafer Engineering & Consulting, P.A., signed and sealed by Warren W. Schafer, P. E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series and following statement: "Miami-Dade County Product Control Approved" unless otherwise noted herein.

REVISION of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **renews NOA No. 06-1228.02** and consists of this page 1, evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**

MIAMI-DADE COUNTY
APPROVED

J. Gascon
12/15/11

NOA No. 11-1026.03

Expiration Date: May 03, 2017

Approval Date: December 22, 2011

Page 1

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under previous NOA No. 06-1228.02)
2. Drawing No. 1487, titled Series "8 Ft. Aluminum Clad Out-Swing Wood Impact Doors", sheets 1 through 11 of 11, dated 08/17/2006, with revision "A1", dated 10/17/2011, prepared by W. W. Schafer Engineering & Consulting, P.A., signed and sealed by Warren W. Schafer, P. E.

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94along with marked-up drawings and installation diagram of outswing wood door, prepared by Architectural Testing, Inc., Test Report No. ATI-67287.01-201-18, dated 12/01/2006, signed and sealed by Joseph A. Reed, P.E.
(Submitted under previous NOA No. 06-1228.02)

C. CALCULATIONS


1. Anchor verification calculations and structural analysis, complying with FBC-2007, FBC-2010 and ANSI/ AAMA/ NWWDA 1001/ I.S.2-97, prepared by W. W. Schafer Engineering & Consulting, P.A., dated 10/17/2011, signed and sealed by Warren W. Schafer, P. E.
2. Glazing complies with ASTM E1300-98/ 04

D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont Sentry Glass® Interlayer" dated 05/26/2010, expiring on 01/14/12.
2. Test reports on:
 - 1) Determining Ignition Temperature of Plastic, per ASTM D-1929;
 - 2) Density of Smoke Testing of Fiberglass Reinforced Plastic, per ASTM D-2843;along with installation diagram, prepared by SGS U. S. Testing Company, Inc., Test Reports No.'s SGS 147520-1, SGS 147520-2, SGS 147520-3 and SGS 147520-4, dated 10/27/2000, signed by Michael S. Elliott.
(Submitted under previous NOA No. 06-1228.02)


Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 11-1026.03
Expiration Date: May 03, 2017
Approval Date: December 22, 2011

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS (CONTINUED)

3. Test reports on: 1) Tensile Properties and Xenon-Arc Weathering Tests of Fiberglass Reinforced Plastic;
2) Flammability Testing of Fiberglass Reinforced Plastic, per ASTM D-635;
3) Flammability Testing of Geon 06935-3490, per ASTM D-635;
4) Ignition Temperature Testing of Geon 06935-3490, per ASTM D-2843 and Density of Smoke Testing of Fiberglass Reinforced Plastic.

along with marked-up drawings and installation diagram, prepared by Stork/ Twin City Testing Corporation, Inc., Test Reports No.'s **TCT 18 0-0758, TCT 18 0-0758.1, TCT 18 0-0758.2, TCT 18 0-0758.3** and **TCT 18 0-0796**, dated 10/12, 11/08, 11/09, 11/16, 11/29/2000 and 04/19/2001, signed and sealed by Derrick J. Swanson, P. E.

(Submitted under previous NOA No. 06-1228.02)

4. Test reports on: 1) Determining Ignition Temperature of Plastic, per ASTM D-1929; along with installation diagram prepared by Intertek Testing Services NA, Inc., Test Report No. **ITS-3119811SAT-001**, dated 03/28/2007, signed by Servando Romo.
5. Test reports on: 1) Determining Ignition Temperature of Plastic, per UL 723 substitute to ASTM E-84;
along with installation diagram prepared by Underwriters Laboratories, Inc., Test Report No. **UL-R11183**, dated 01/09/2006, signed by Janet L. Burton.

F. STATEMENTS

1. Statement letter of conformance and compliance with the FBC-2007 including supplements, FBC-2010 and ANSI/ AAMA/ NWWDA 1001/ I.S.2-97, prepared by W. W. Schafer Engineering & Consulting, P.A., dated 10/17/2011, signed and sealed by Warren W. Schafer, P. E.
2. Statement letter of no financial interest and independence, dated 10/17/2011, signed and sealed by Warren W. Schafer, P. E.
3. Laboratory compliance letter for Test Report No. **ATI-67287.01-201-18**, issued by Stork/ Twin City Testing Corporation, Inc., dated 12/01/2006, signed and sealed by Joseph A. Reed, P. E.

(Submitted under previous NOA No. 06-1228.02)

4. Laboratory compliance letter for Test Reports No's **TCT 18 0-0758, TCT 18 0-0758.1, TCT 18 0-0758.2, TCT 18 0-0758.3** and **TCT 18 0-0796**, issued by Architectural Testing, Inc., dated 10/12, 11/08, 11/09, 11/16, 11/29/2000 and 04/19/2001, signed and sealed by Derrick J. Swanson, P. E.

(Submitted under previous NOA No. 06-1228.02)



Jaime D. Gascon, P. E.

Product Control Section Supervisor

NOA No. 11-1026.03

Expiration Date: May 03, 2017

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Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

5. Laboratory compliance letter for Test Reports No.'s **SGS 147520-1, SGS 147520-2, SGS 147520-3 and SGS 147520-4**, issued by SGS U. S. Testing Company, Inc., dated 10/27/2000, signed by Michael S. Elliott.
(Submitted under previous NOA No. 06-1228.02)
6. Laboratory compliance letter for Test Report No. **UL-R11183**, issued by Underwriters Laboratories, Inc., dated 01/09/2006, signed by Janet L. Burton, P. E.
(Submitted under previous NOA No. 06-1228.02)
7. Laboratory compliance letter for Test Report No. **ITS-3119811SAT-001**, issued by Intertek Testing Services NA, Inc., dated 03/28/2007, signed by Servando Romo.
(Submitted under previous NOA No. 06-1228.02)

G. OTHERS

1. Notice of Acceptance No. **06-1228.02**, issued to Marvin Windows and Doors for their Series **"French Storm Plus I-Z4" 8'-0" Aluminum Clad Wood Outswing Glazed Doors - L.M.I.**, approved on 05/03/2007 and expiring on 05/03/2012.

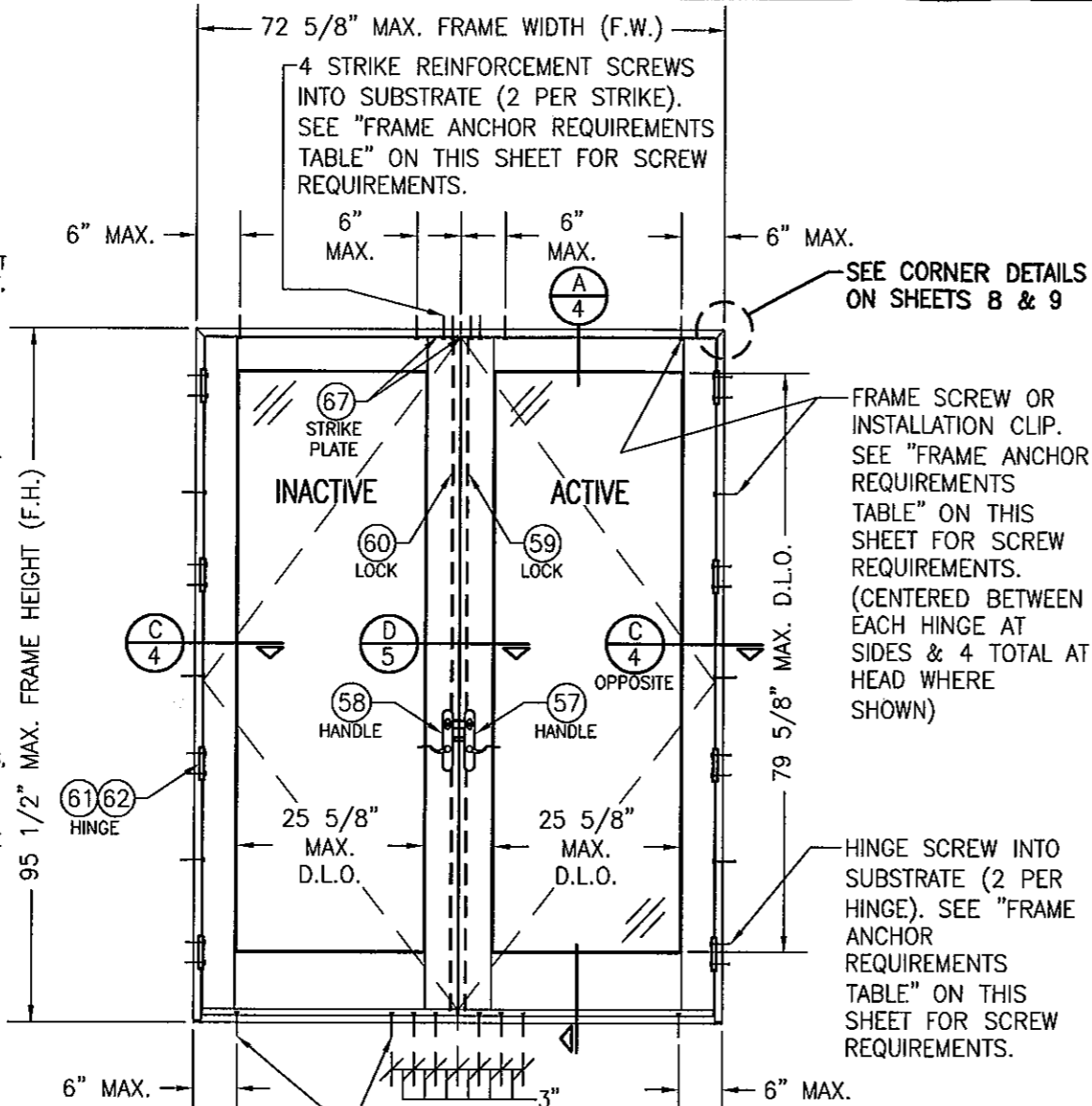


Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 11-1026.03

Expiration Date: May 03, 2017
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GENERAL NOTES:

1. THESE DOOR SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT DOORS.
5. THESE DOOR SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE DOORS.
7. ALL ANCHORS SECURING DOOR FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF DOORS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

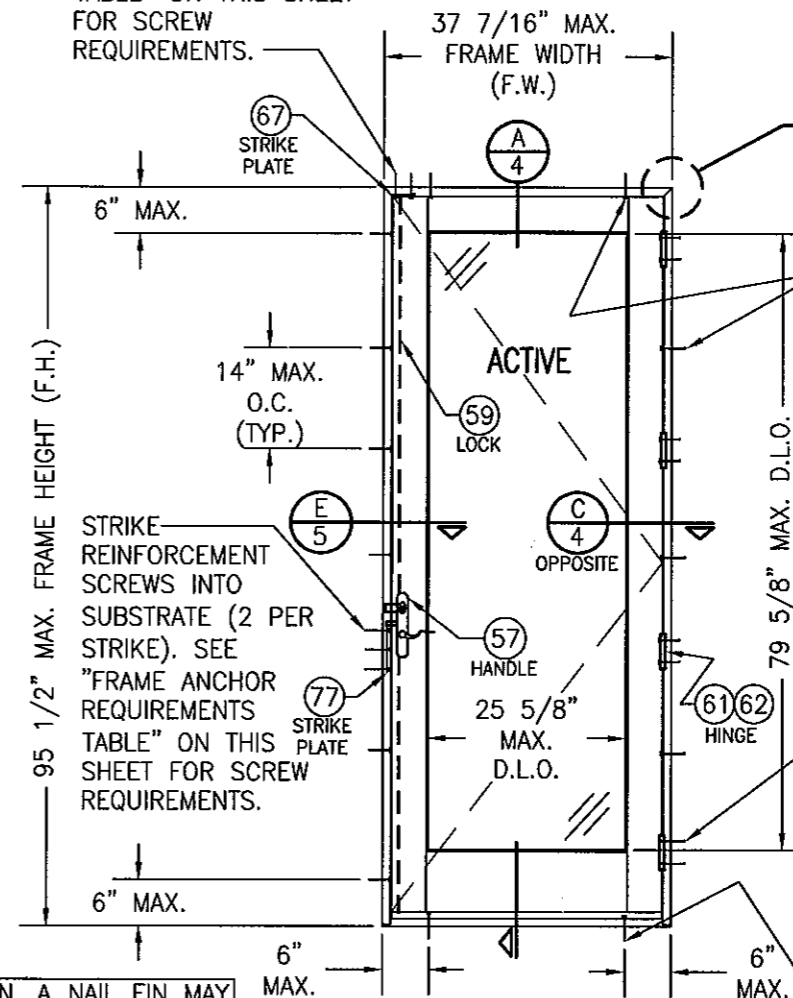


SILL ANCHORS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS (1 AT EACH CORNER & 6 AT SILL MID-SPAN AS SHOWN).

**EXTERIOR ELEVATION
DOUBLE OUTSWING DOOR**

SCALE: 1/2" = 1'-0"

STRIKE REINFORCEMENT SCREWS INTO SUBSTRATE (2 PER STRIKE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.



SEE CORNER DETAILS ON SHEETS 8 & 9

FRAME SCREW OR INSTALLATION CLIP. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS. (CENTERED BETWEEN EACH HINGE & WHERE SHOWN AT OTHER SIDE & 2 AT HEAD WHERE SHOWN)

HINGE SCREW INTO SUBSTRATE (2 PER HINGE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

SILL ANCHORS AT EACH CORNER WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

**EXTERIOR ELEVATION
SINGLE OUTSWING DOOR**

SCALE: 1/2" = 1'-0"

NOTE: ALTHOUGH NOT SHOWN, A NAIL FIN MAY BE APPLIED AROUND THE DOOR FRAMES IN ADDITION TO ANCHOR CONDITIONS SHOWN TO ACT AS A PERIMETER SEAL (NAIL FIN SHALL NOT BE A SUBSTITUTE FOR ANCHOR CONDITIONS SHOWN).

NOTE: DOORS MAY BE FULLY GLAZED AS SHOWN OR PARTIALLY PANELED. SEE SHEET 3 ELEVATION FOR PARTIAL PANELED DOORS.

ALLOWABLE DESIGN PRESSURE
SEE LOAD TABLES ON SHEET 2

PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No. 11-1026-03
Expiration Date 05/03/2017
By: [Signature]
Miami Dade Product Control

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SHEAR SCREWS			
2X_ WOOD FRAME OR BUCK	NO. 10 SMS SCREW	1 1/4"	3/4"
(2) MIN. C90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	2"
MIN. 18 GAGE 33 KSI METAL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM OR A36 STEEL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
HINGE & STRIKE SHEAR SCREWS			
2X_ WOOD FRAME OR BUCK	NO. 10 SMS SCREW	1 1/4"	3/4"
(2) MIN. C90 CMU	(1) 3/16" CONCRETE SCREW	1 1/4"	2"
MIN. 2500 PSI CONCRETE	(1) 3/16" CONCRETE SCREW	1 1/2"	2"
MIN. 18 GAGE 33 KSI METAL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM OR A36 STEEL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"

HINGE REQUIREMENTS

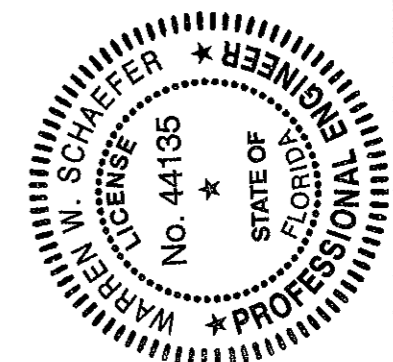
MAX. FRAME HEIGHT	MIN. # OF HINGES
95 1/2"	4
82"	3

FRAME ANCHOR REQUIREMENTS TABLE (CONT'D)

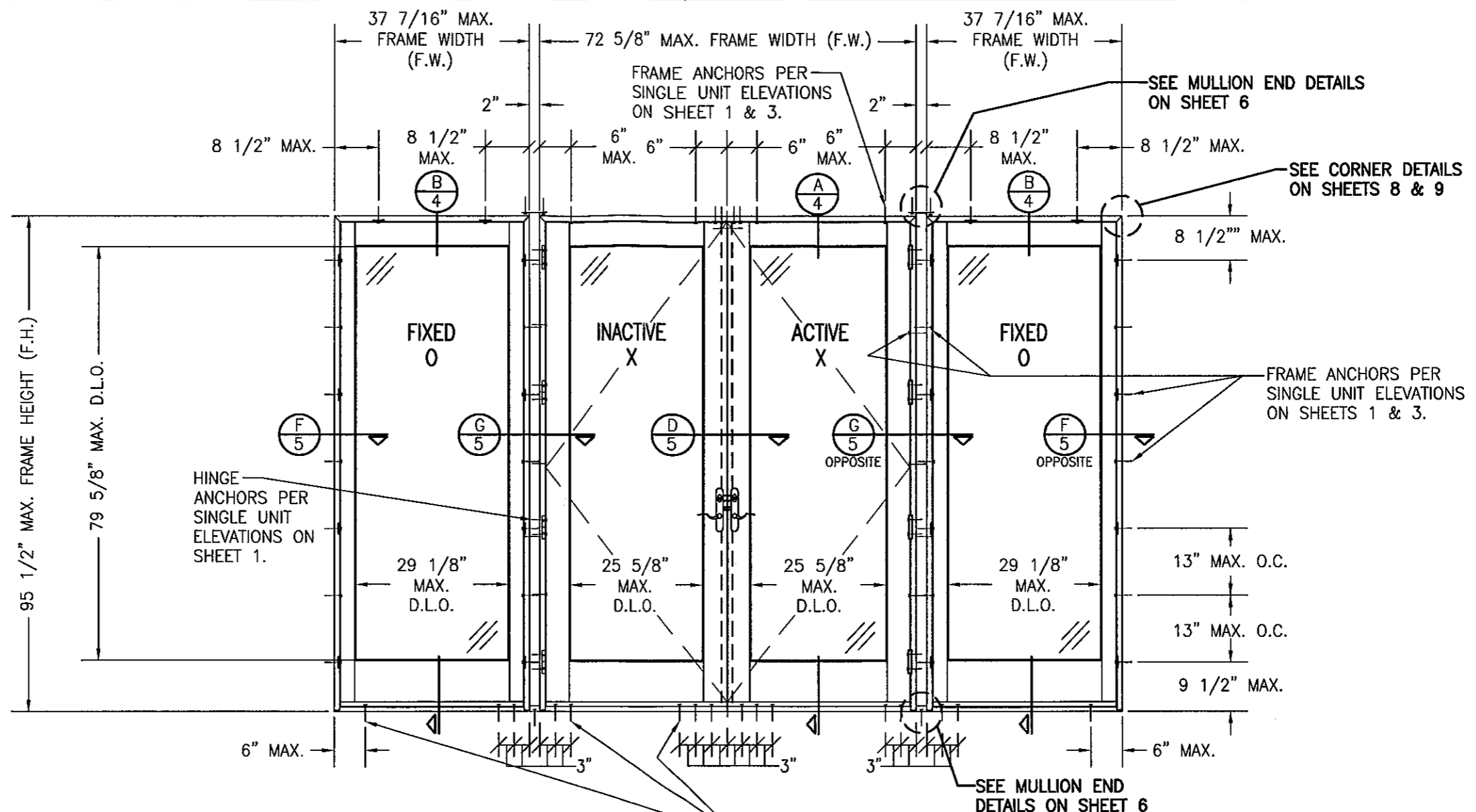
INSTALLATION CLIP SCREWS			
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 3/8"	3/4"
MIN. 18 GAGE 33 KSI METAL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM OR A36 STEEL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).			
(2) CMU IS APPLICABLE AT SIDES ONLY.			

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 8/17/08
DATE: 10/17/11	
BY: W.R.M.	
REVISION DESCRIPTION	
NO. 1	AT UPDATE TO CURRENT STANDARDS
DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS	
MANUFACTURER: MARVIN WINDOWS & DOORS	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
DRAWING NO. 1487	
SHEET NO. 1 OF 11	
REV. A	



CERTIFICATION
OCT 17 2011
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135



**ALLOWABLE DESIGN PRESSURE WITH GLASS OPTION 2
(SINGLE & MULLED UNITS)**

DOOR TYPE	MAX. FRAME HEIGHT	MAX. D.L.O. HEIGHT	ALL D.L.O. WIDTHS
SINGLE & DOUBLE OPERABLE	95 1/2"	79 5/8"	+65/-80 PSF
SINGLE & DOUBLE OPERABLE	82"	66 1/8"	+65/-85 PSF
FIXED PANEL	95 1/2"	79 5/8"	+65/-85 PSF

NOTE: SEE GLAZING DETAIL ON SHEET 6 FOR GLASS OPTIONS.

**ALLOWABLE DESIGN PRESSURE WITH GLASS OPTION 1
(SINGLE & MULLED UNITS)**

DOOR TYPE	MAX. FRAME HEIGHT	MAX. D.L.O. HEIGHT	D.L.O. WIDTH LESS THAN OR EQUAL TO 23 5/8"	D.L.O. WIDTH BETWEEN 23 5/8" & 25 5/8"	D.L.O. WIDTH = 25 5/8" TO 29 1/8"
SINGLE & DOUBLE OPERABLE	95 1/2"	79 5/8"	+65/-80 PSF	+65/-72 PSF	N/A
SINGLE & DOUBLE OPERABLE	82"	66 1/8"	+65/-85 PSF	+65/-78 PSF	N/A
FIXED PANEL	95 1/2"	79 5/8"	+65/-85 PSF	+65/-72 PSF	+57/-57 PSF

NOTE: SEE GLAZING DETAIL ON SHEET 6 FOR GLASS OPTIONS.

**EXTERIOR ELEVATION
DOUBLE OUTSWING DOOR WITH SIDELIGHTS**

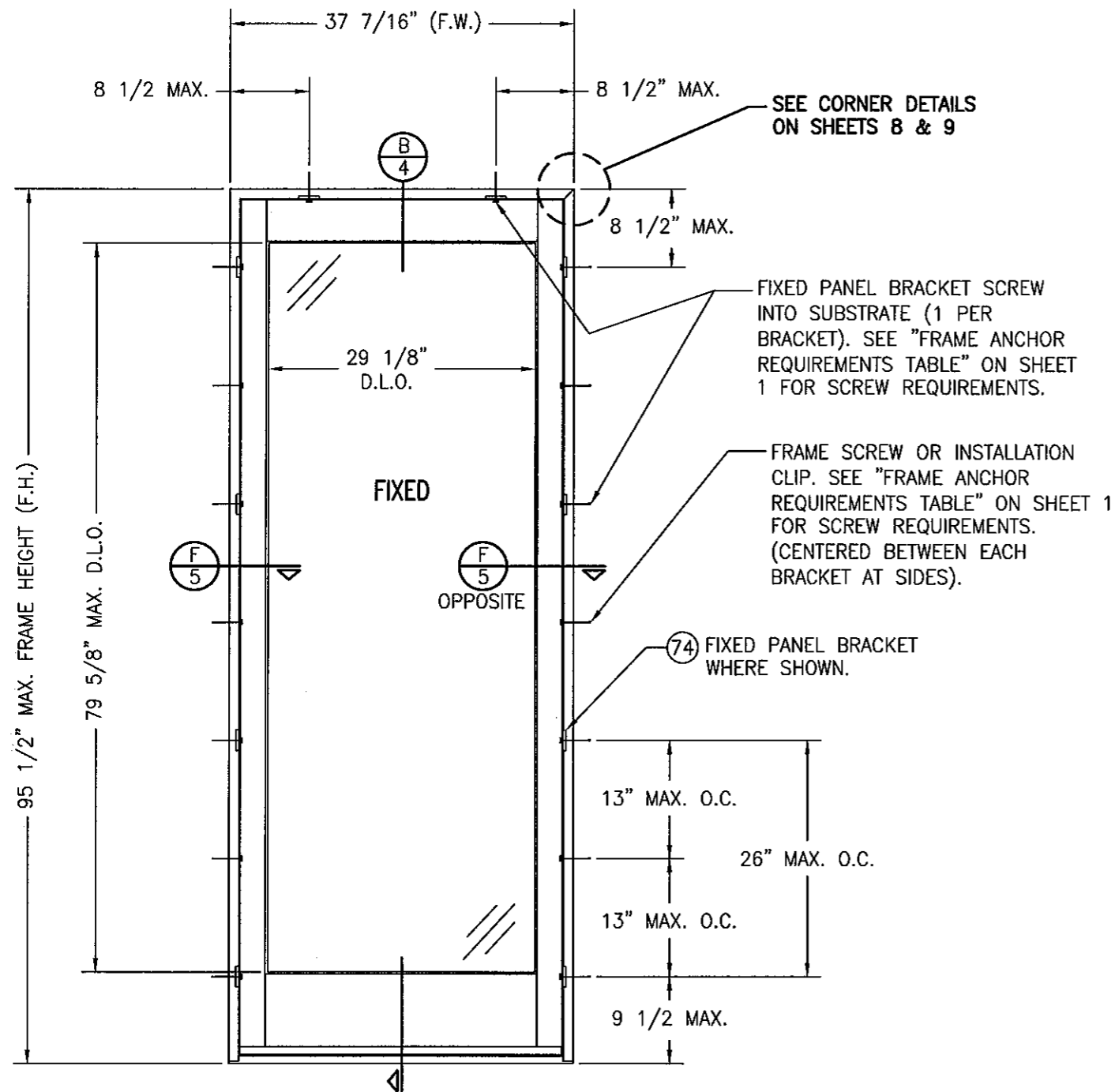
SCALE: 1/2" = 1'-0"

OXXO DOOR SHOWN. ALL OTHER 4-PANEL CONFIGURATIONS
NOTE: OF SINGLE/DOUBLE DOORS & SIDELIGHTS ALSO APPLY.
(FOR ALL DETAIL NOT SHOWN, SEE SINGLE UNIT ELEVATIONS.)

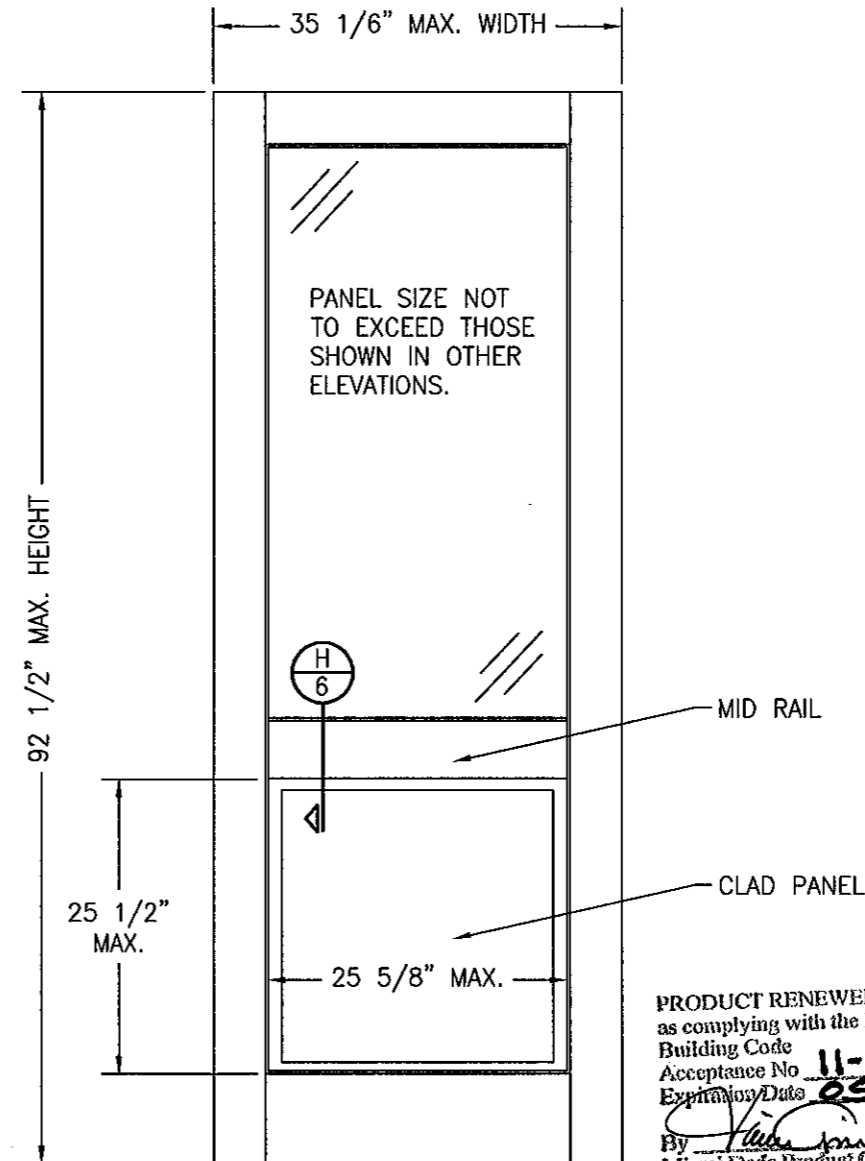
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-1026.03
Expiration Date 05/23/2017
By [Signature]
Miami Made Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 8/17/08	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
CONSULTANTS:		MANUFACTURER:	
W. W. SCHAEFFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MARVIN WINDOWS & DOORS	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION		DRAWING NO. 1487	
OCT 17 2011		REV. A	
WARREN W. SCHAEFFER, P.E. P.E. NO. 44135		SHEET NO. 2 OF 11	



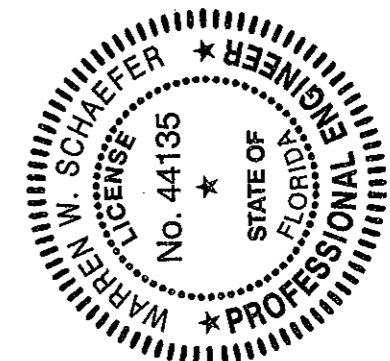
**EXTERIOR ELEVATION
SINGLE FIXED PANEL**
SCALE: 3/4"=1'-0"



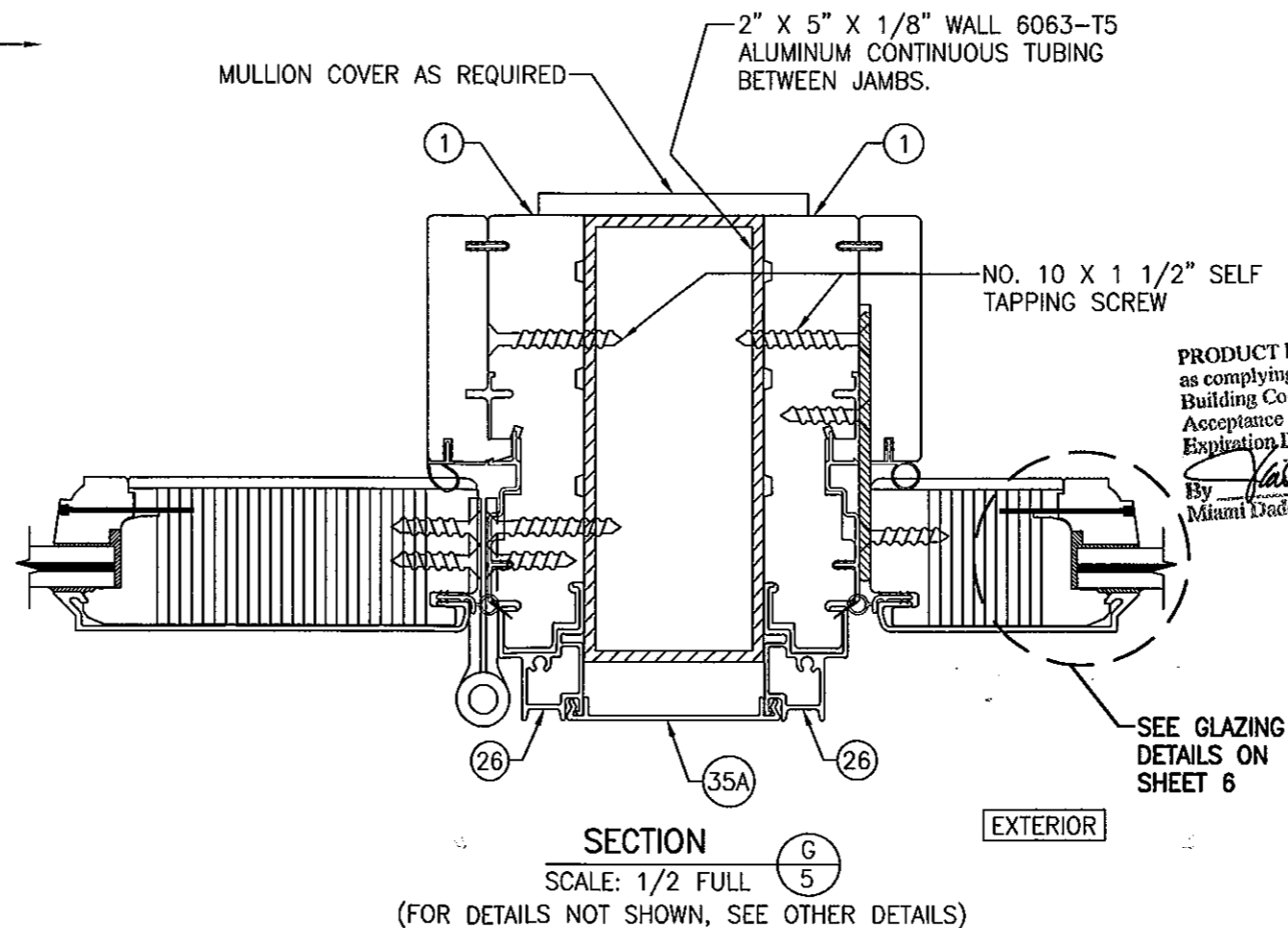
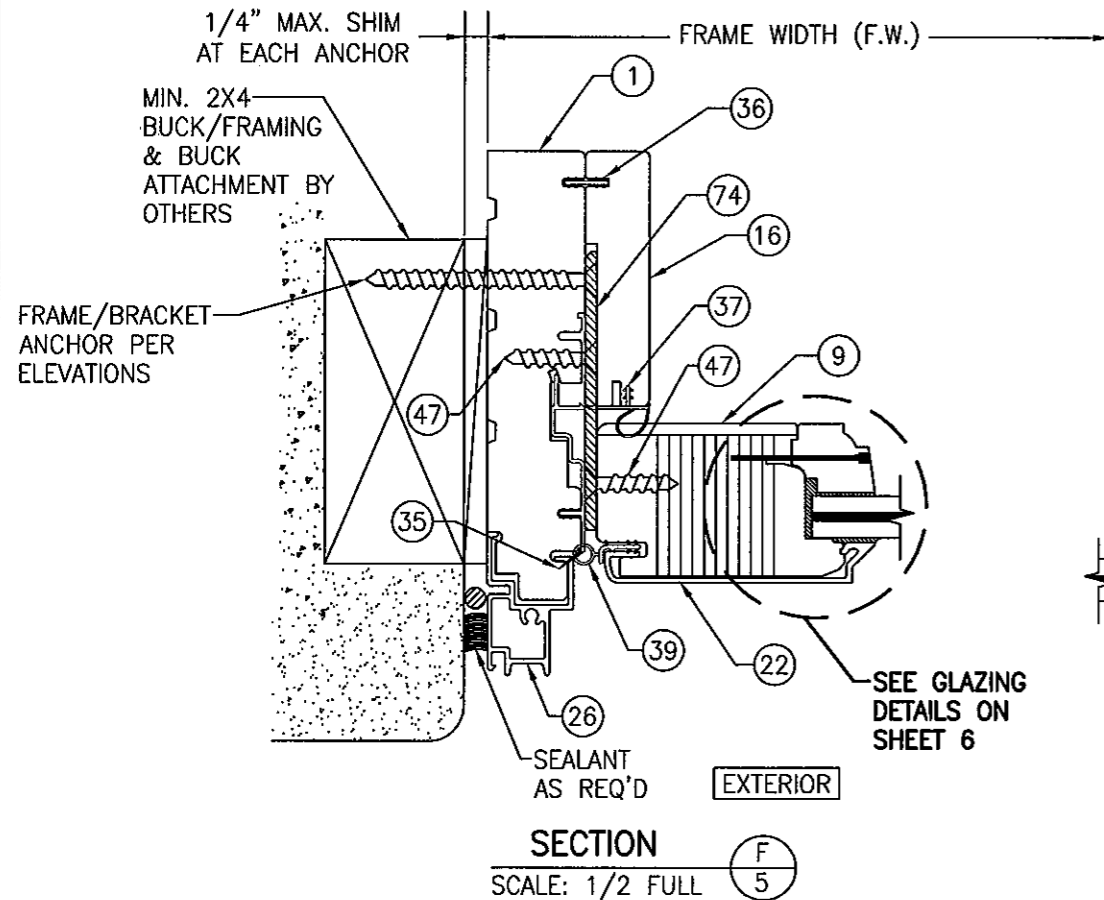
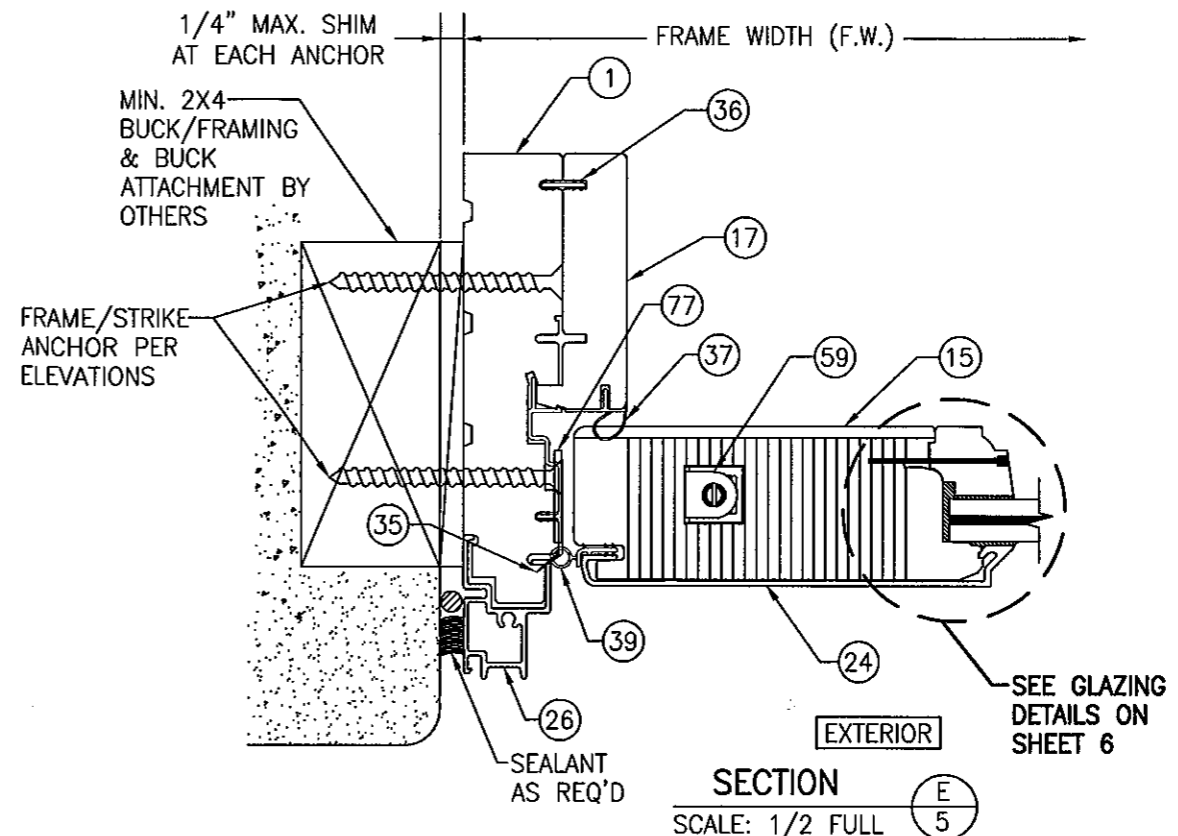
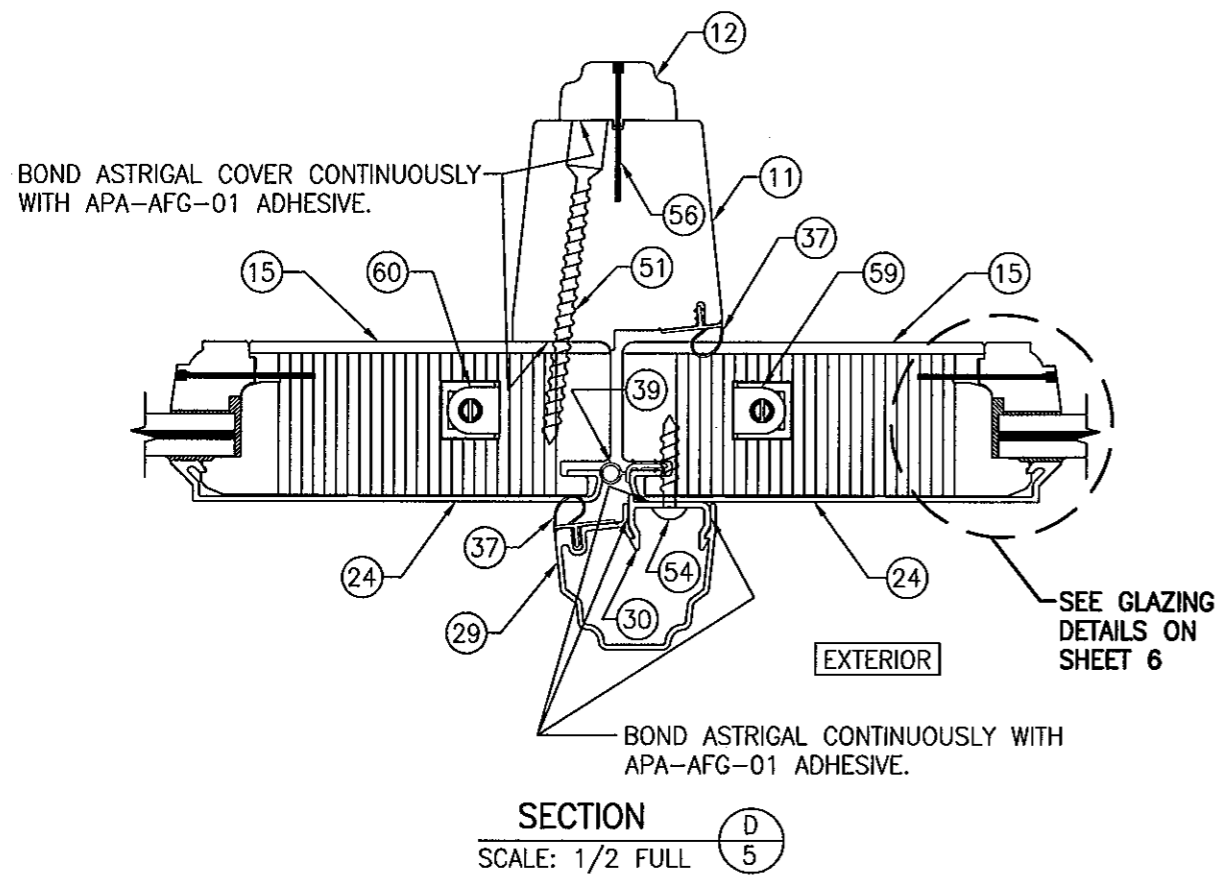
**EXTERIOR ELEVATION
RAISED PANEL**
SCALE: 3/4"=1'-0"

NOTE: PANEL ONLY IS SHOWN.
FOR INSTALLATION INTO FRAME,
SEE OTHER ELEVATIONS.

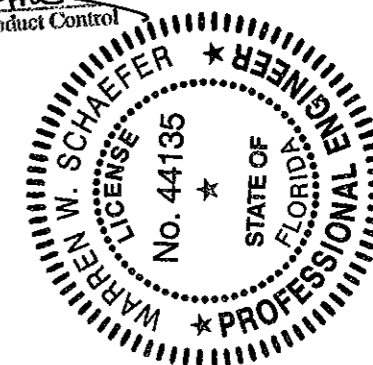
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. **11-1026.03**
Expiration Date **05/23/2017**
By *[Signature]*
Miami Dade Product Control



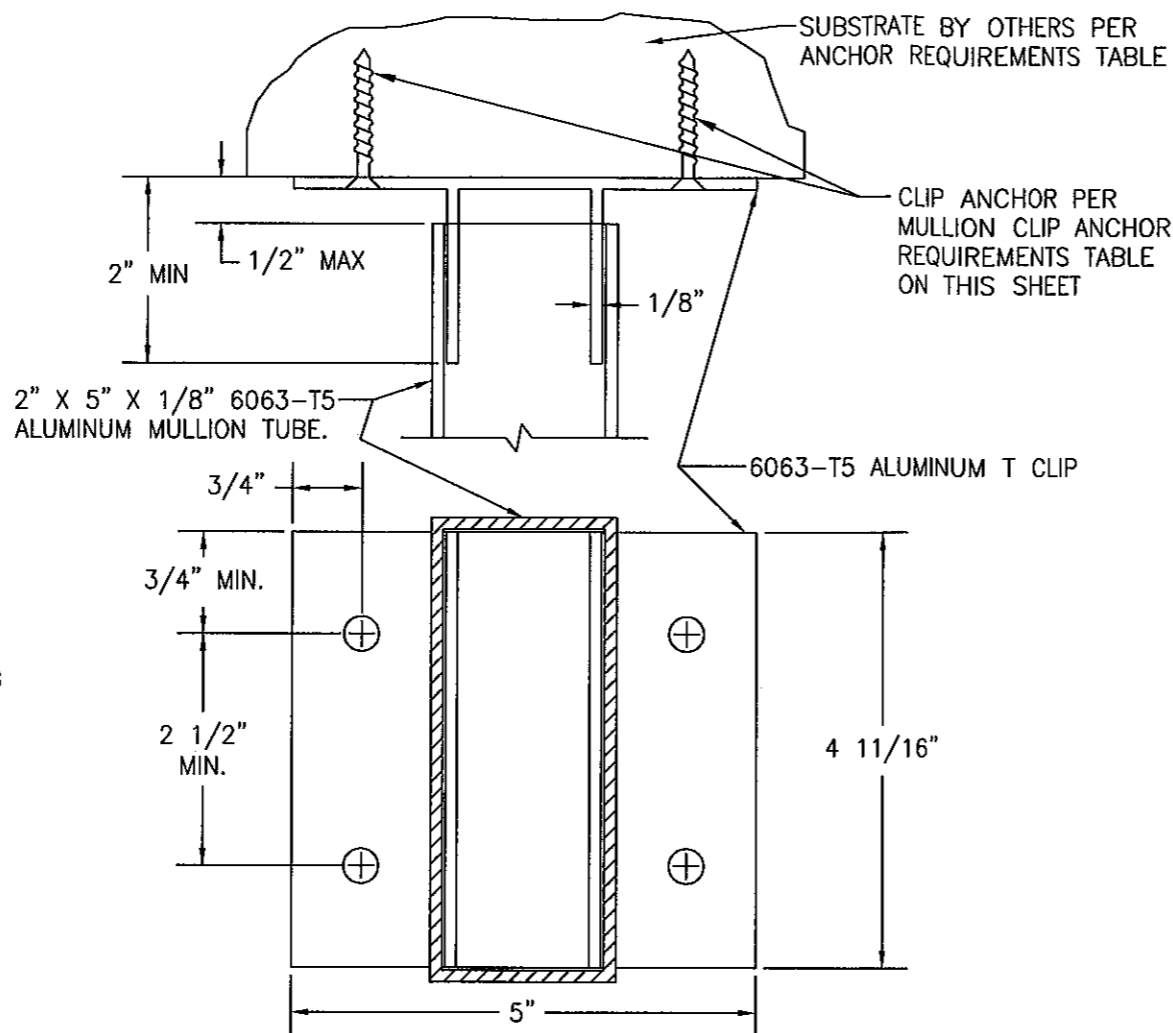
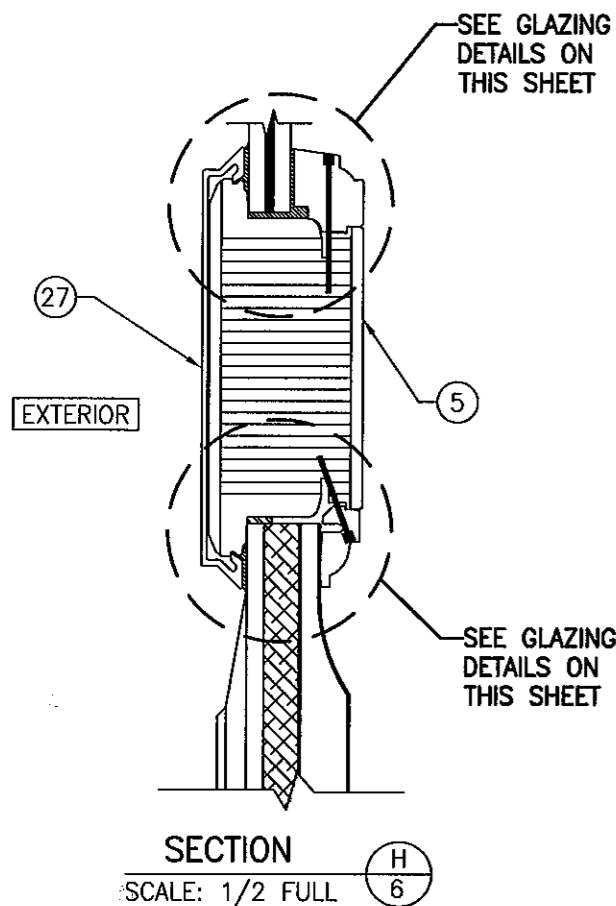
DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=16		DATE: 8/17/06	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION <i>[Signature]</i> OCT 17 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1487 REV. A	
SHEET NO. 3		OF 11	



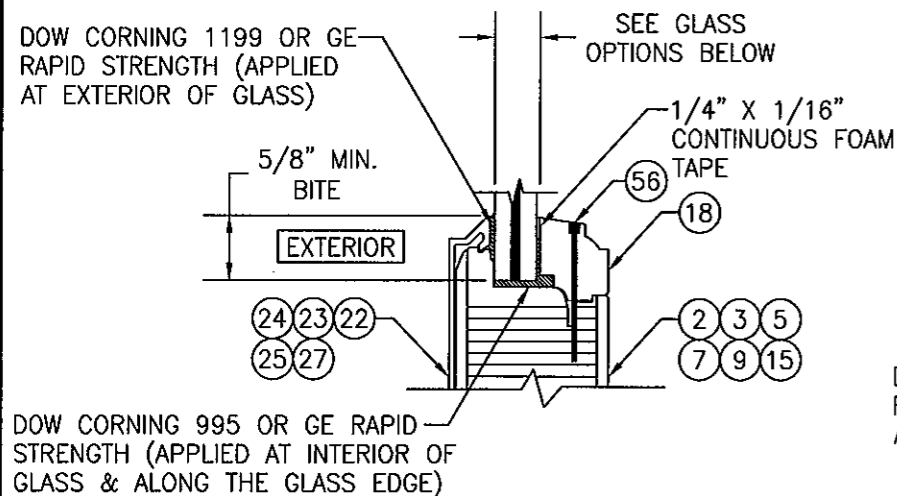
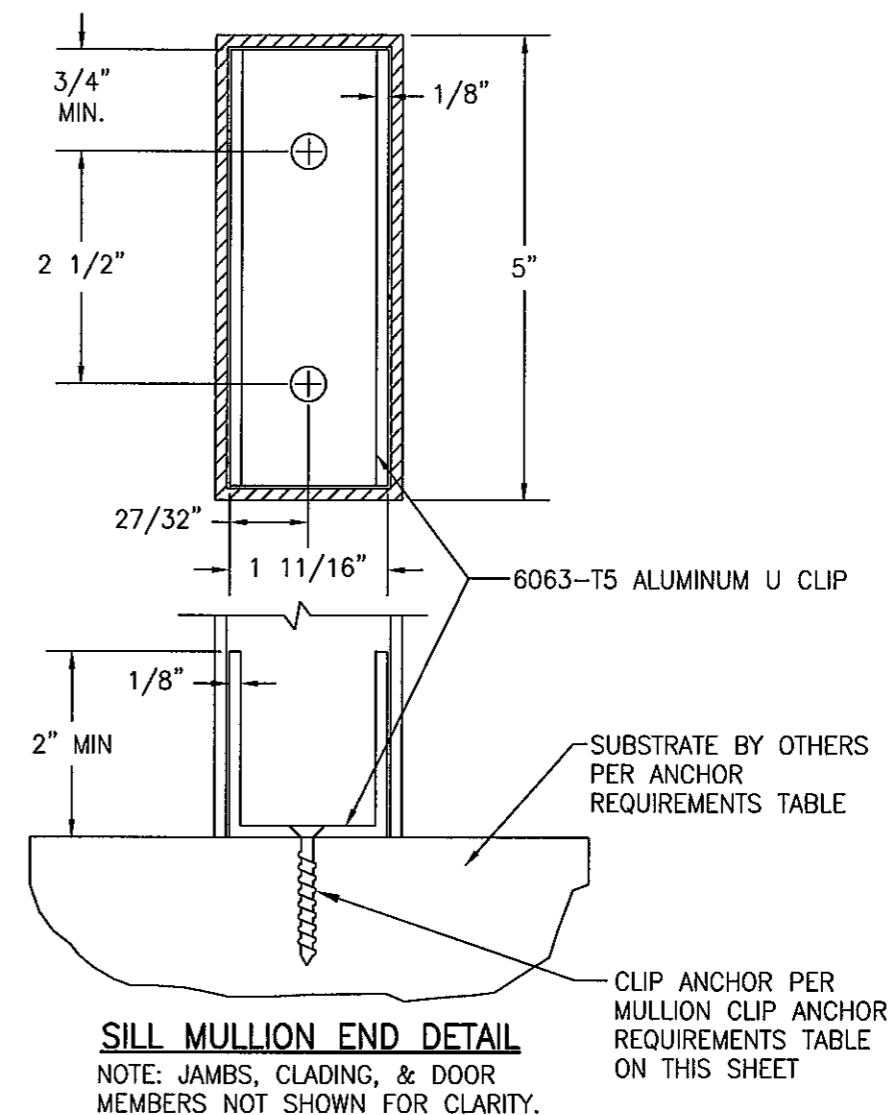
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-1026.03
Expiration Date 03/03/2017
By *[Signature]*
Miami Dade Product Control



DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 8/17/06
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS	
MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION	<p>17 2011</p> <p>WARREN W. SCHAEFER, P.E. P.E. NO. 44135</p>
DRAWING NO. 1487	REV. A
SHEET NO. 5	OF 11

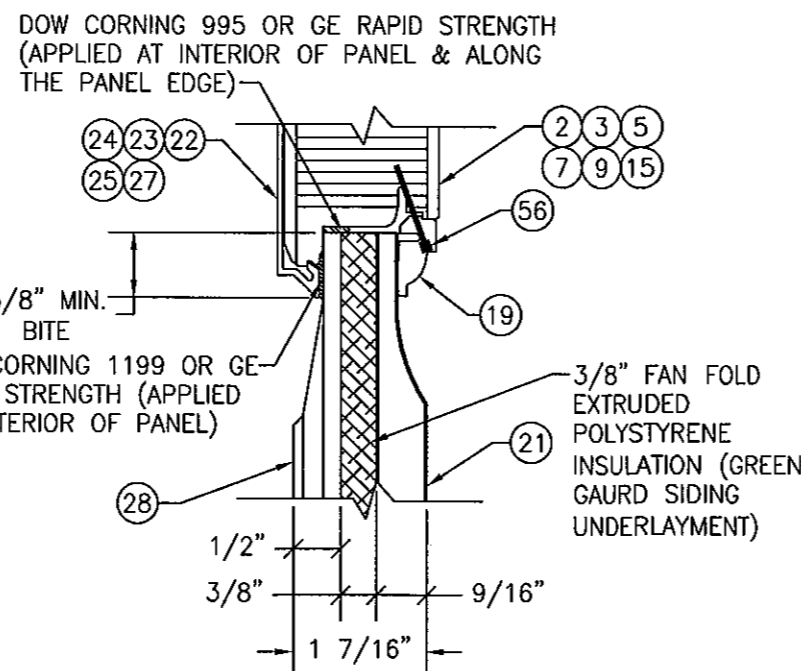


HEAD MULLION END DETAIL
NOTE: JAMBS, CLADING, & DOOR MEMBERS NOT SHOWN FOR CLARITY.



GLAZING DETAIL 1
SCALE: 1/2 FULL

- OPTION 1:** 3/8" DUPONT SENTRY GLASS (SG) LAMINATED GLASS SUPPLIED BY CARDINAL (5/32" ANNEALED/.090 SG/ 5/32" ANNEALED)
- OPTION 2:** 1/2" DUPONT SENTRY GLASS (SG) LAMINATED GLASS SUPPLIED BY CARDINAL (3/16" ANNEALED/.090 SG/ 3/16" ANNEALED)

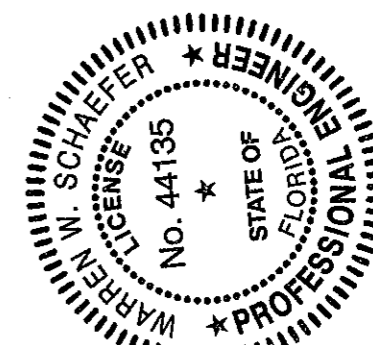


GLAZING DETAIL 2
SCALE: 1/2 FULL

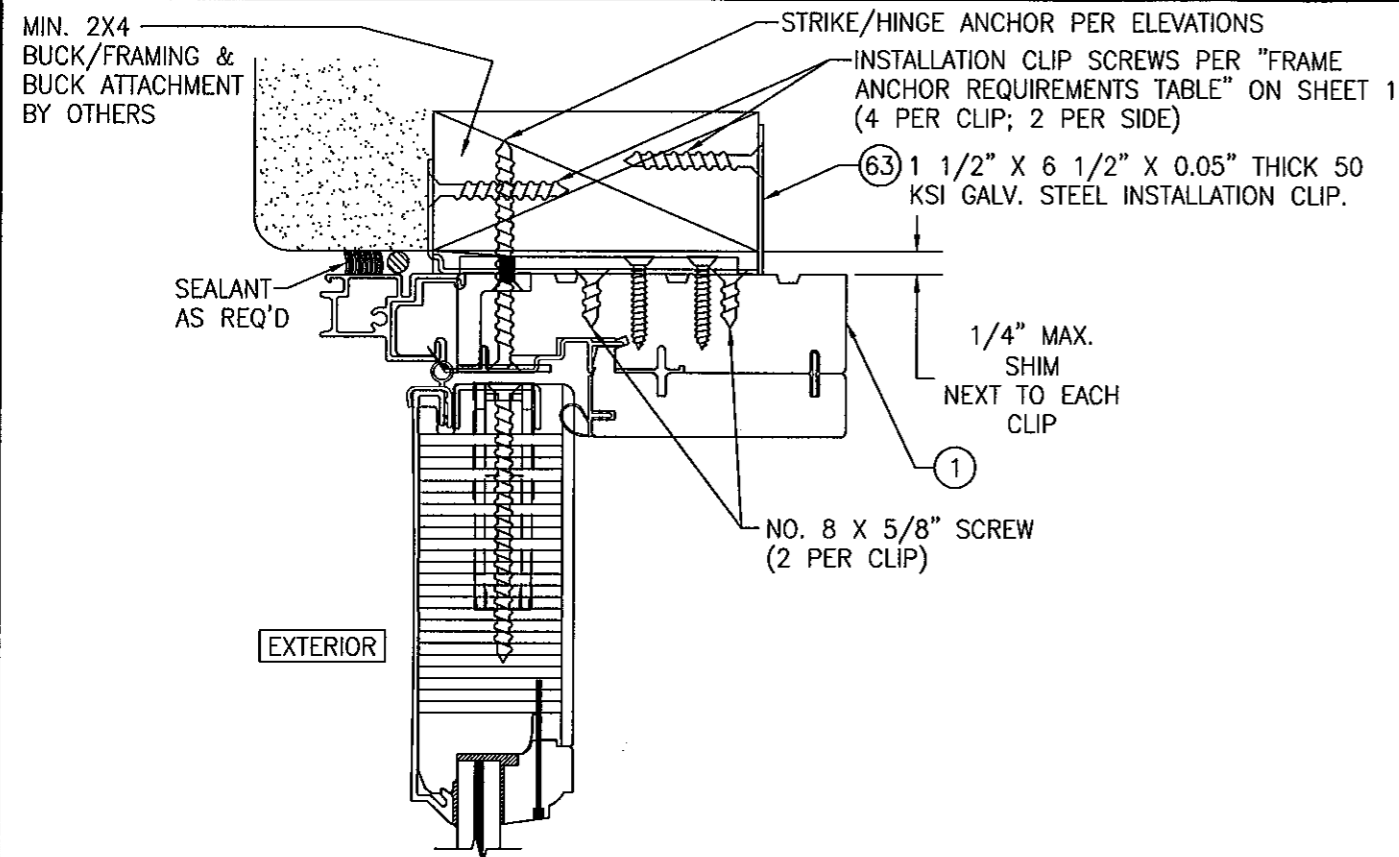
MULLION CLIP ANCHOR REQUIREMENTS TABLE			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 12 SMS SCREW	1 1/4"	3/4"
MIN. 1/8" THK. A36 STEEL	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 18 GAGE 33 KSI METAL STUD	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).

PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No. 11-1026.03
Expiration Date 05/03/2017
By [Signature]
Miami Dade Product Control

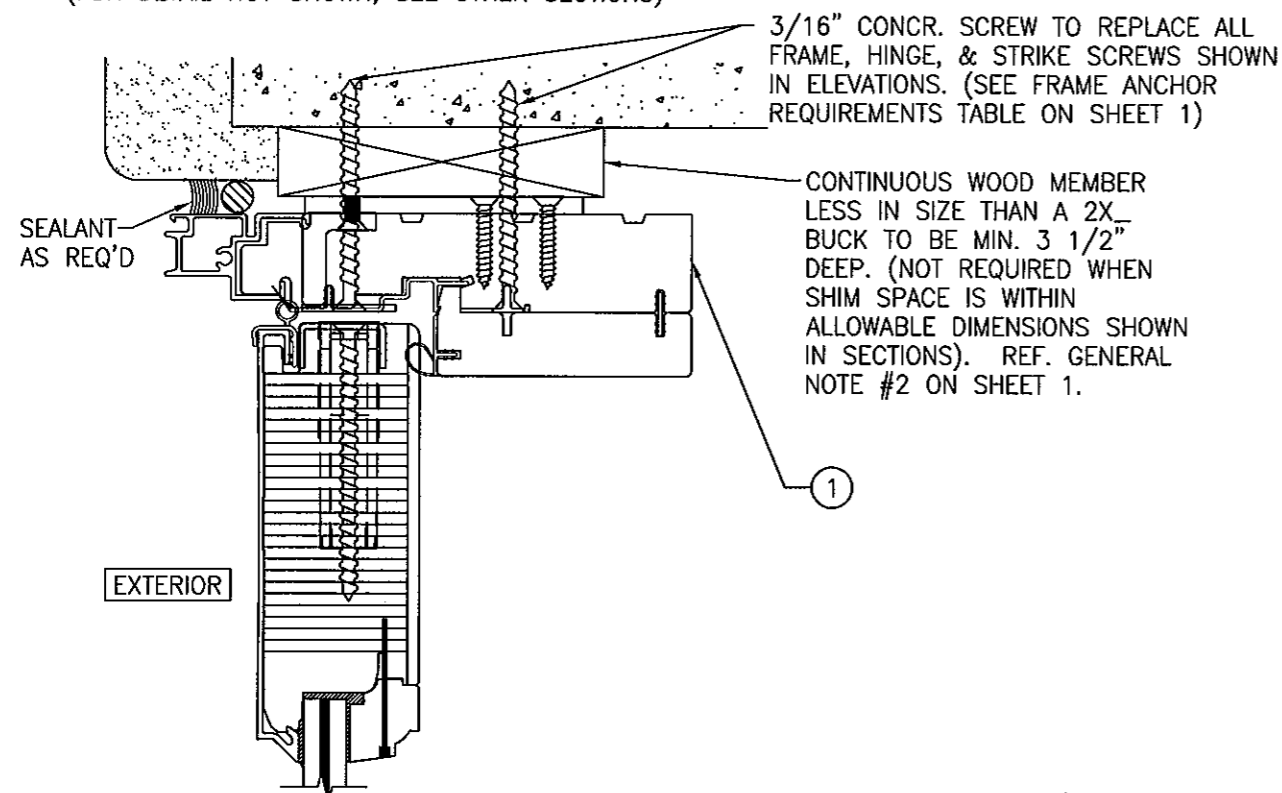


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 8/17/06	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: MARVIN WINDOWS & DOORS	
7480, 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION: [Signature]		OCT 17 2011	
DRAWING NO. 1487		REV. A	
SHEET NO. 6		OF 11	



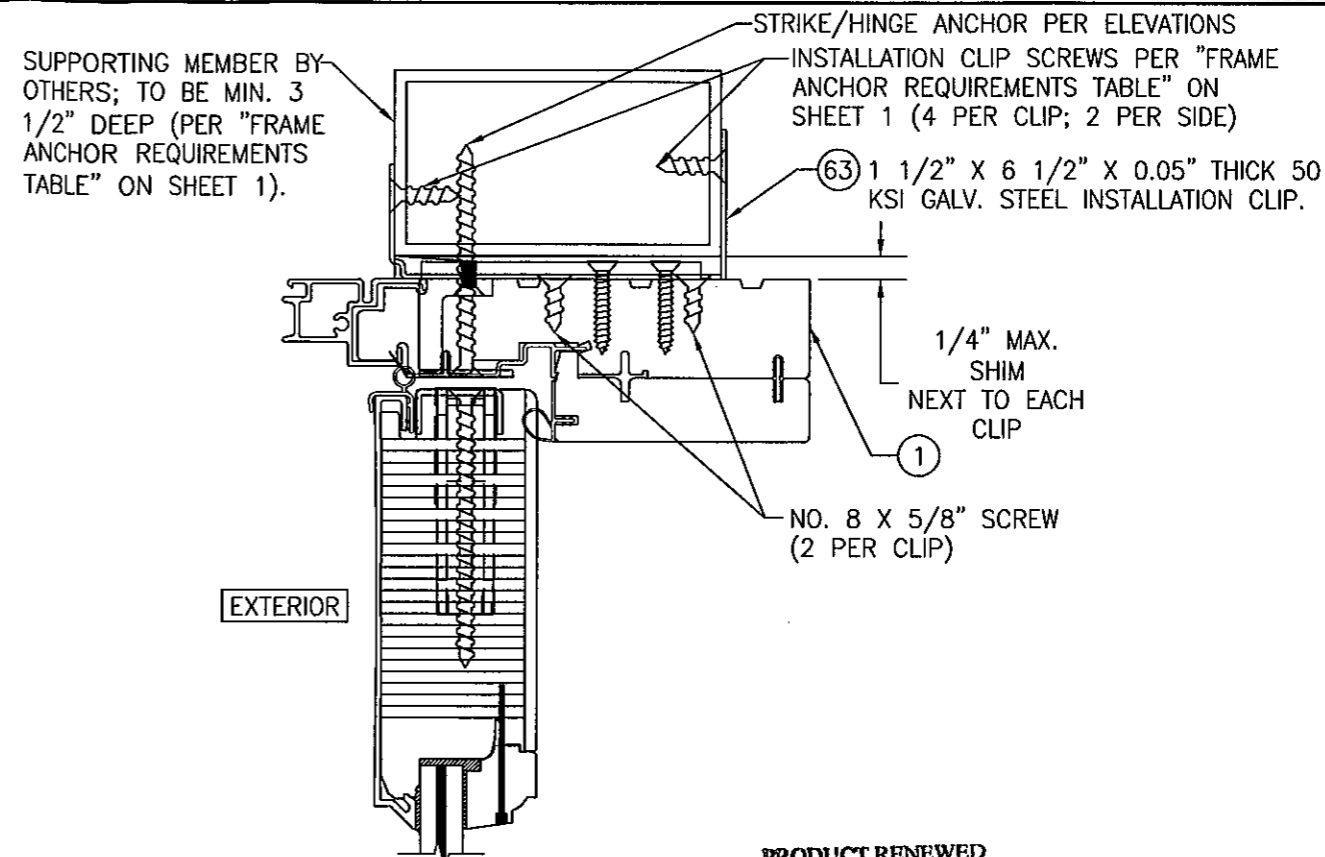
OPTIONAL INSTALLATION CLIP MOUNT DETAIL

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



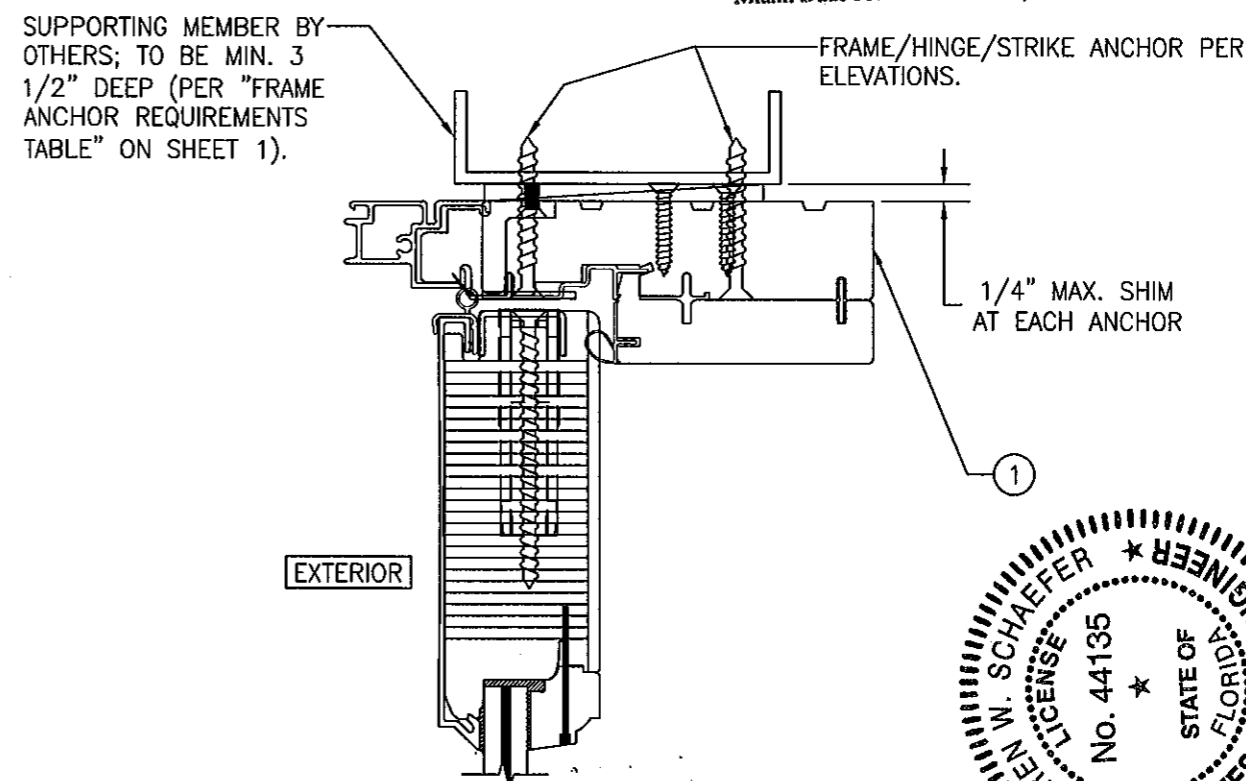
OPTIONAL DIRECT MOUNT DETAIL TO BLOCK OR CONCRETE WITH SPACER OR SHIM

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



OPTIONAL CLIP MOUNT DETAIL TO ALUMINUM OR STEEL

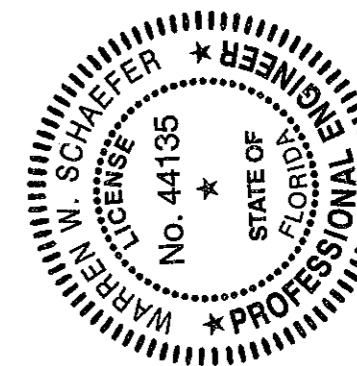
(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



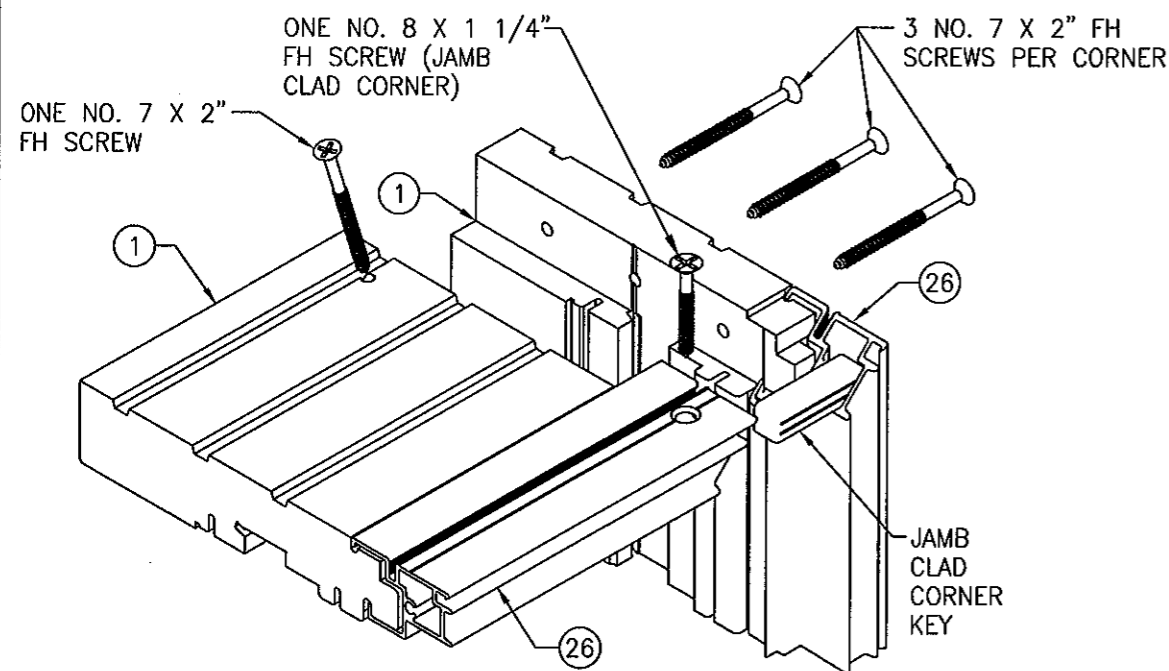
OPTIONAL DIRECT MOUNT DETAIL TO ALUMINUM, STEEL, OR METAL STUD

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

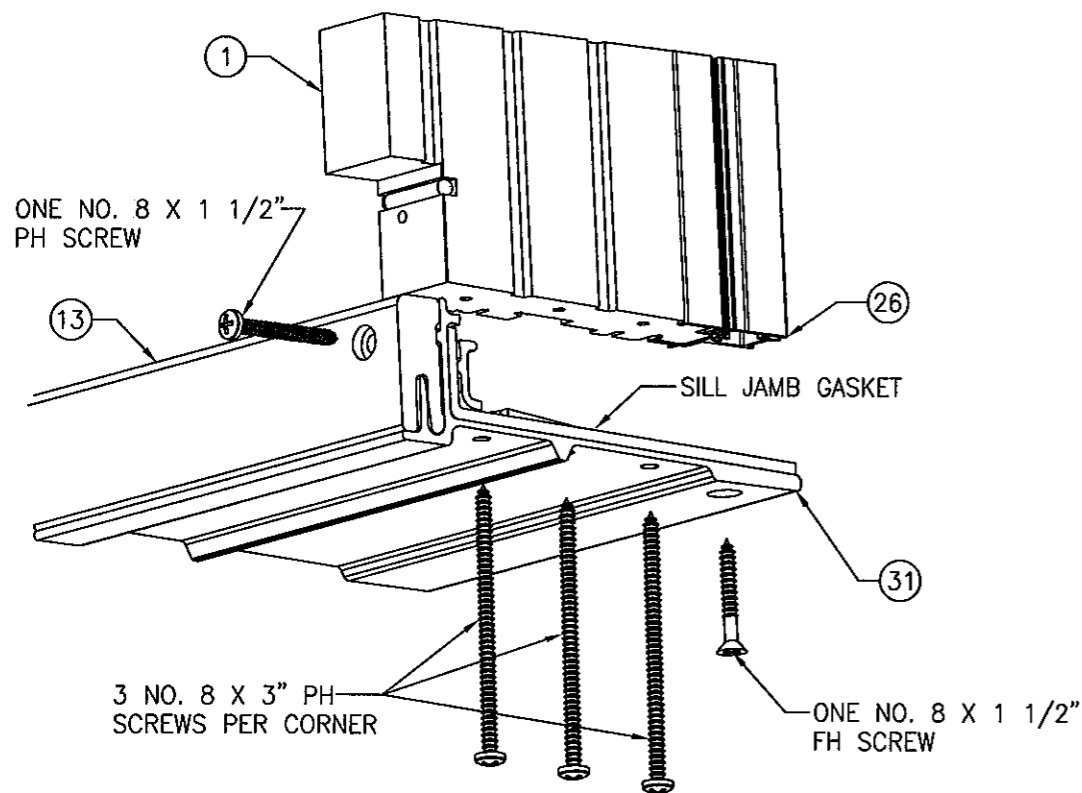
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-1026-03
Expiration Date 05/03/2017
By [Signature]
Miami Dade Product Control



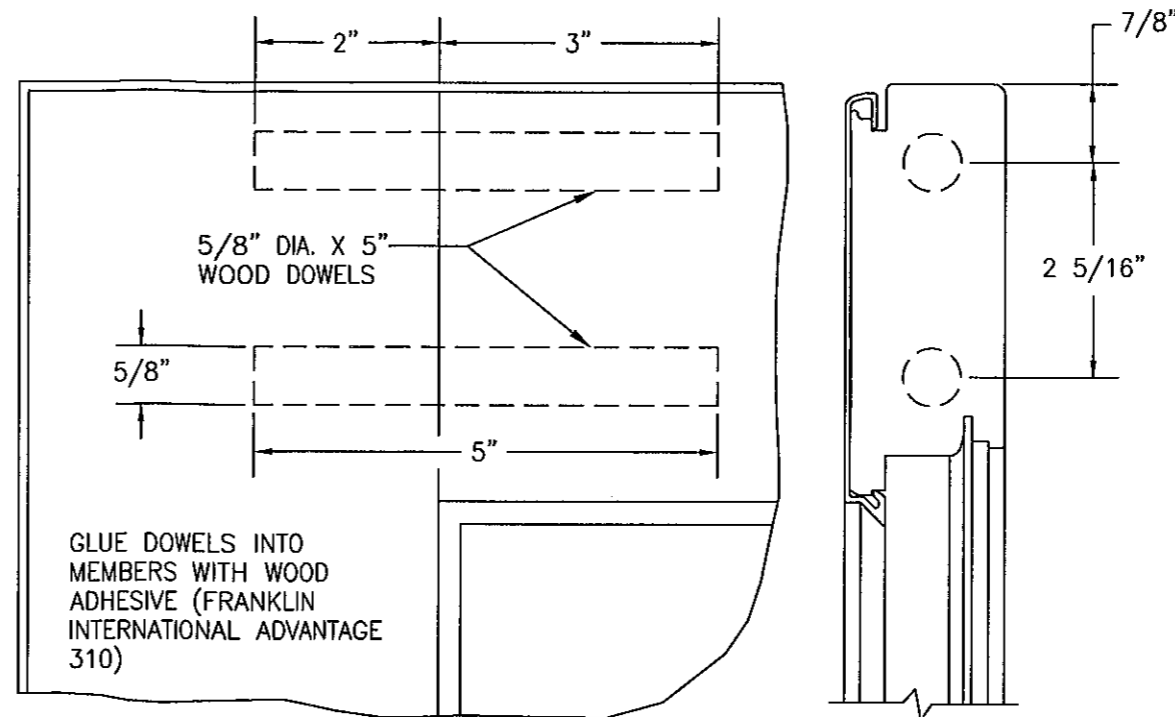
DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 8/17/06	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: MARVIN WINDOWS & DOORS	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION	OCT 27 2011		
DRAWING NO. 1487		REV. A	
SHEET NO. 7		OF 11	



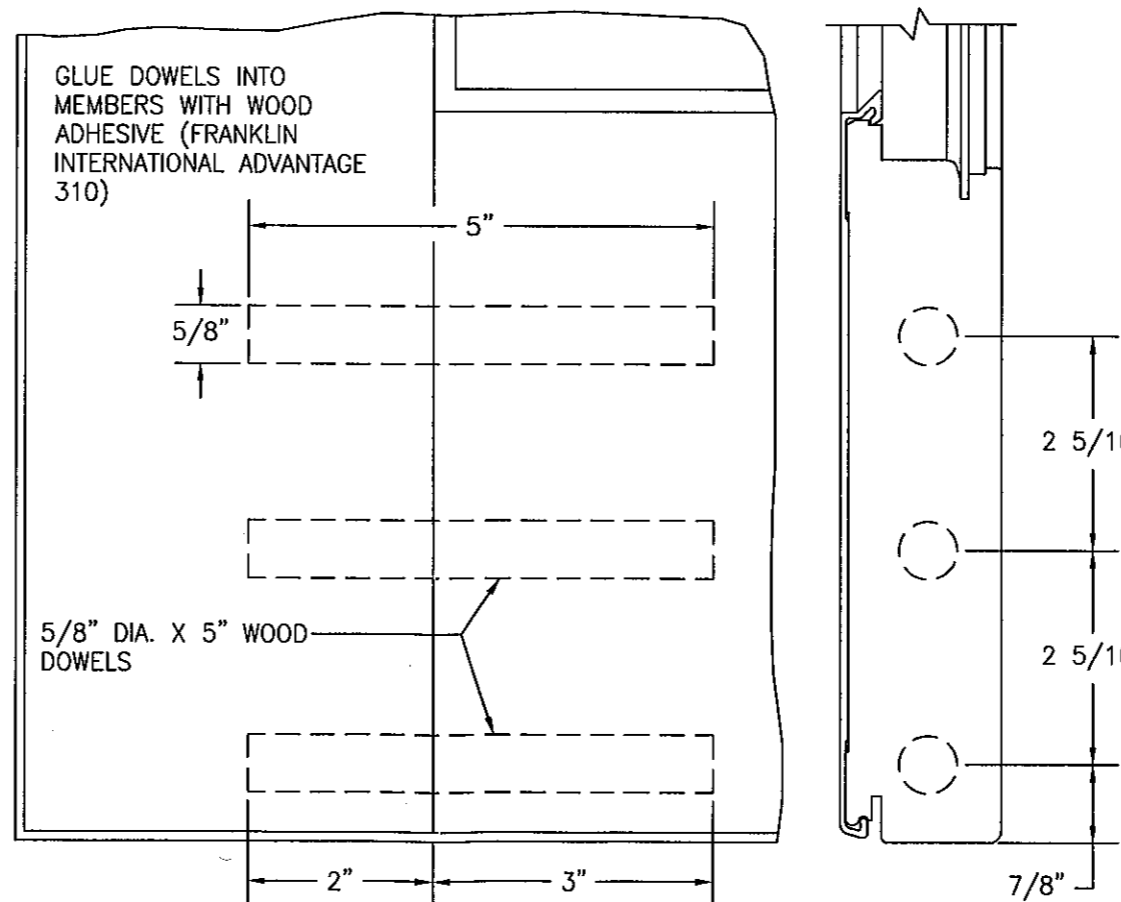
JAMB TO JAMB CORNER DETAIL



JAMB TO THRESHOLD CORNER DETAIL

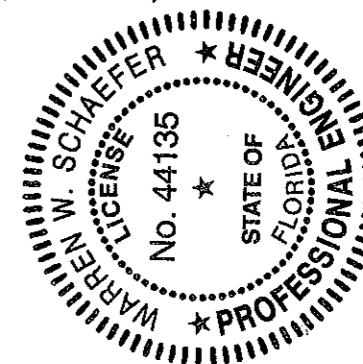


STILE TO TOP RAIL CORNER DETAIL

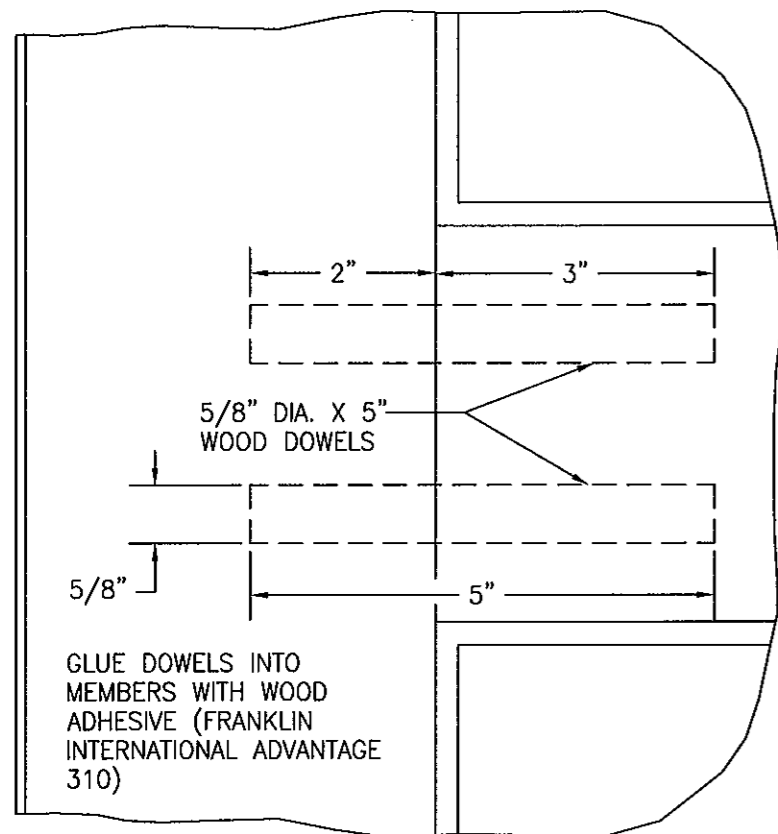


STILE TO BOTTOM RAIL CORNER DETAIL

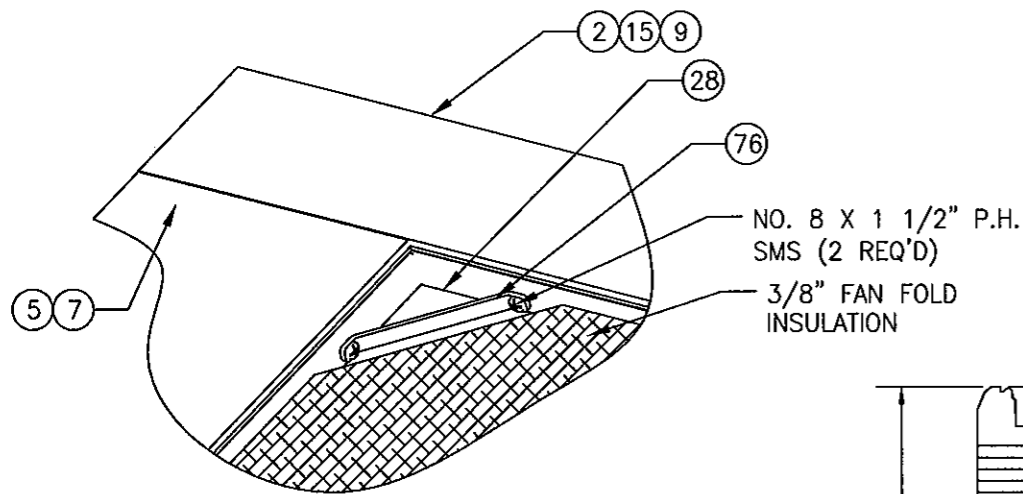
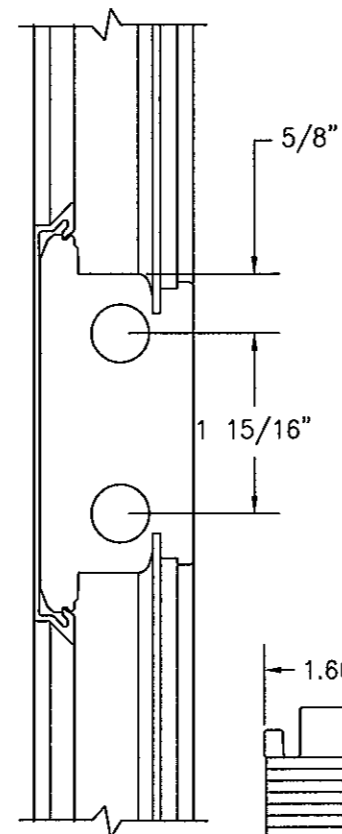
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-1026.03
Expiration Date 05/03/2017
By [Signature]
Miami Dade Product Control



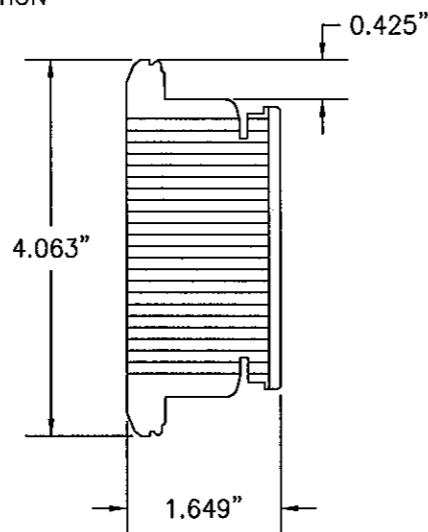
DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 8/17/08	
NO.	REVISION DESCRIPTION	DATE	BY
DRAWING TITLE 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION OCT 17 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1487	
SHEET NO. 8		REV. A	
OF		11	



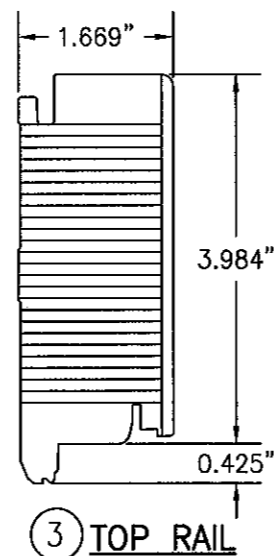
STILE TO INTERMEDIATE RAIL DETAIL



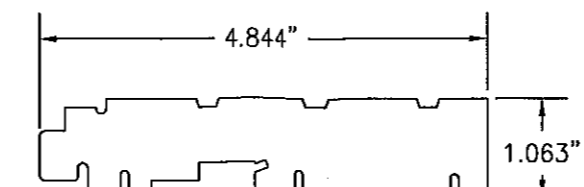
**RAISED PANEL RETAINER PLACEMENT
(ALUM. CLAD DOOR)**



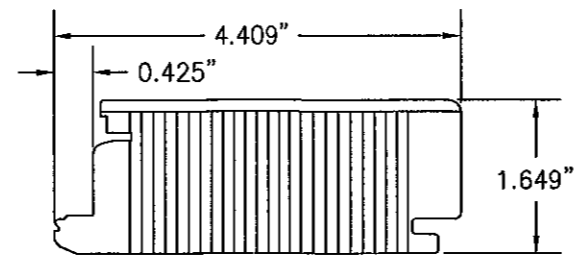
5 INTERMEDIATE RAIL



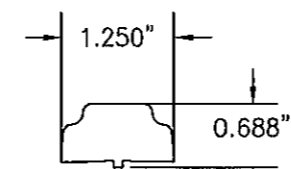
3 TOP RAIL



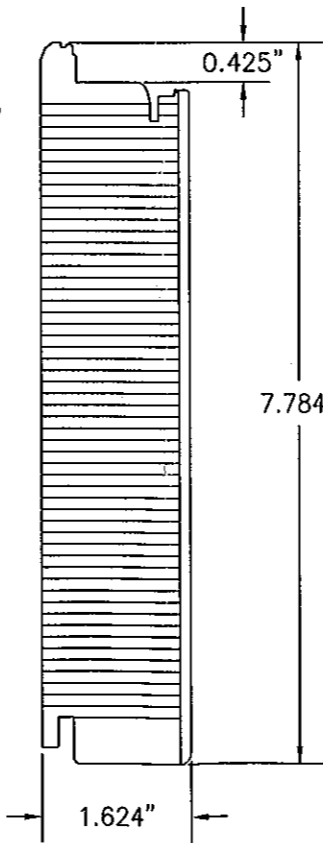
1 SIDE AND HEAD JAMB



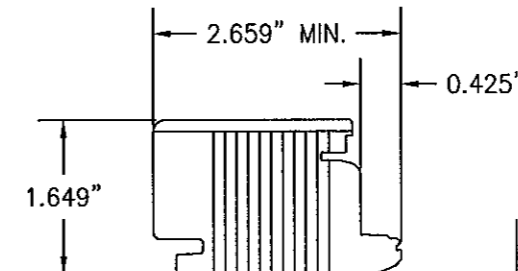
2 HINGE STILE



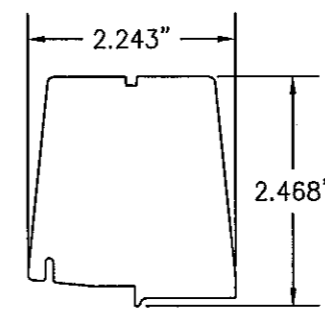
**12 ASTRAGAL
CASING COVER**



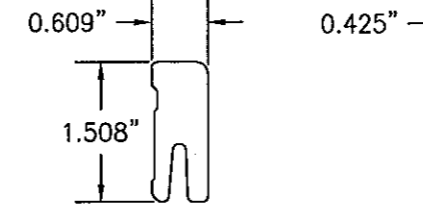
7 BOTTOM RAIL



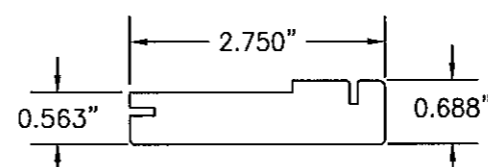
9 FIXED PANEL STILE



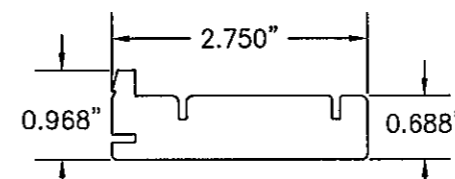
11 ASTRAGAL



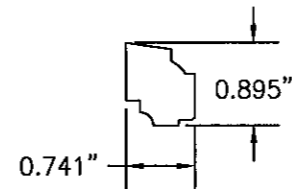
**13 THRESHOLD
LINER**



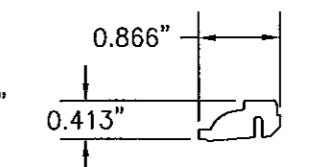
16 PANEL STOP-FIXED PANEL



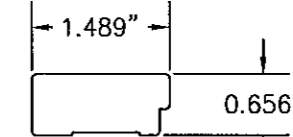
17 PANEL STOP-ACTIVE



18 GLAZING STOP

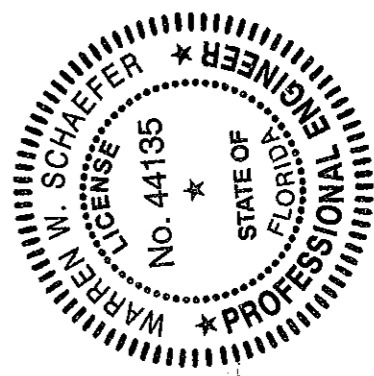


19 GLAZING STOP

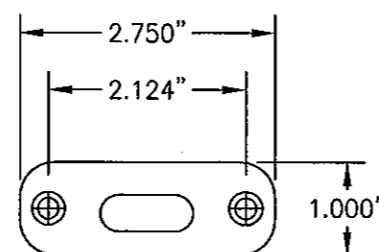
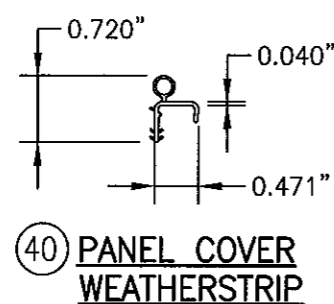
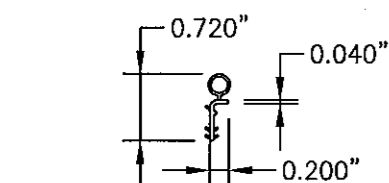
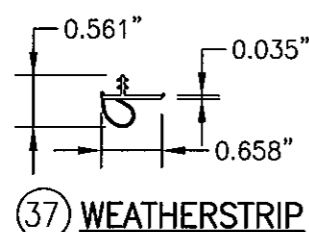
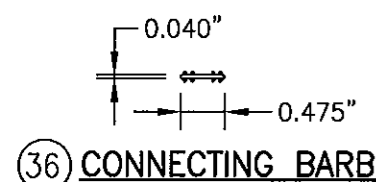
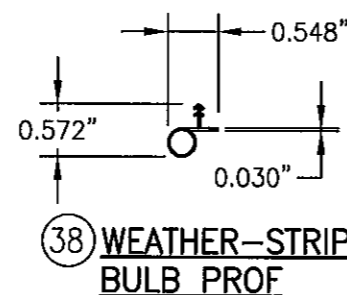
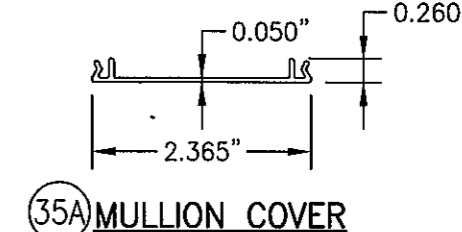
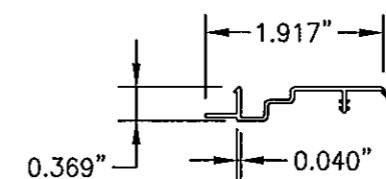
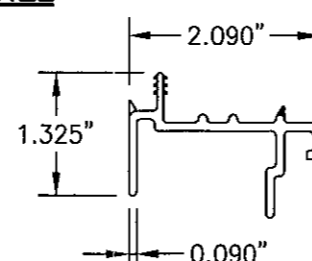
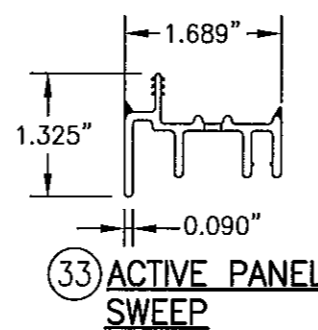
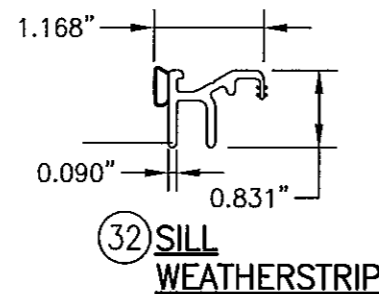
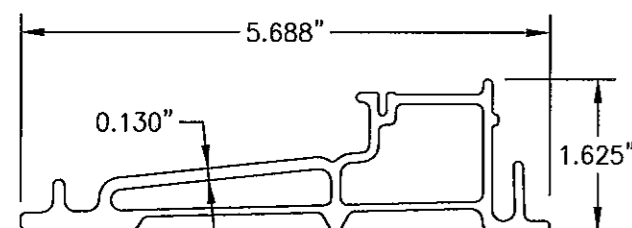
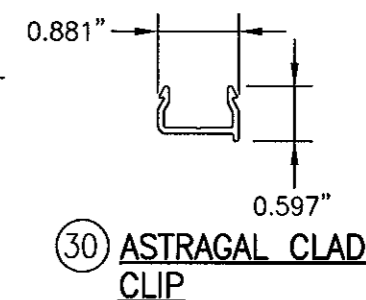
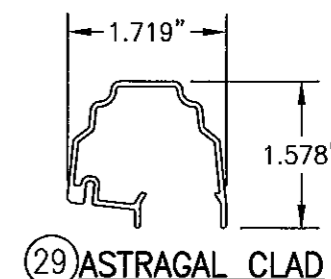
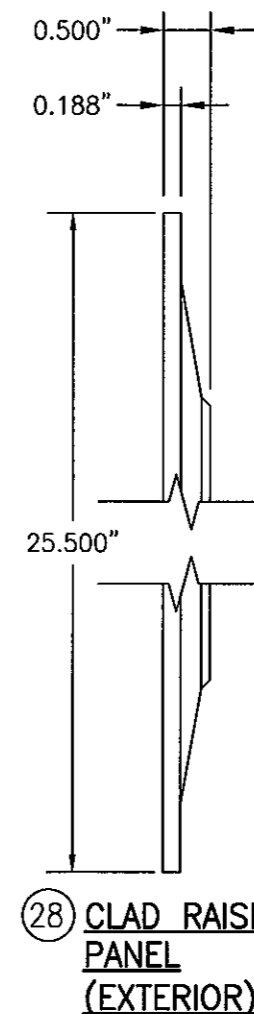
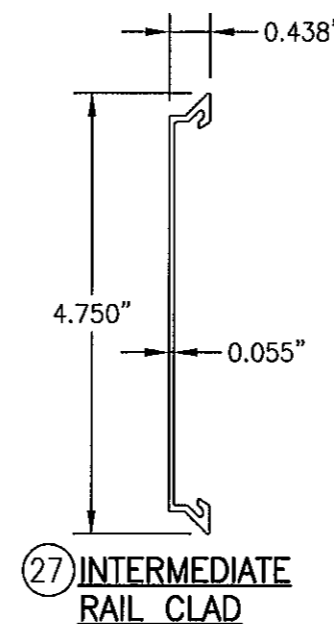
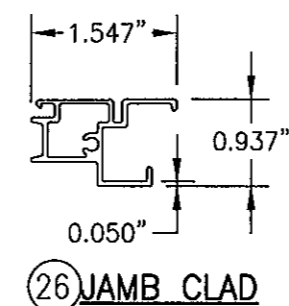
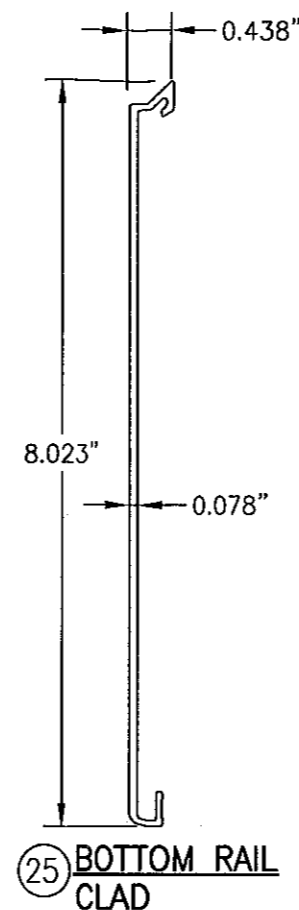
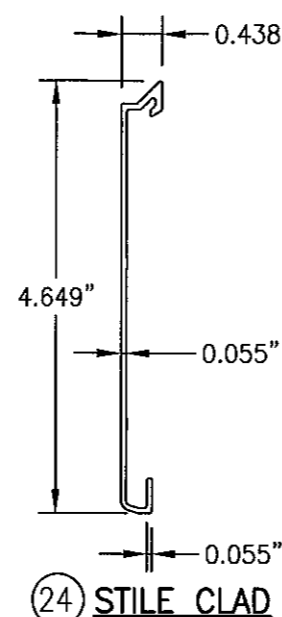
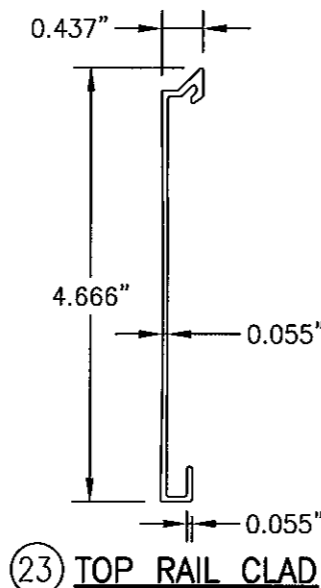
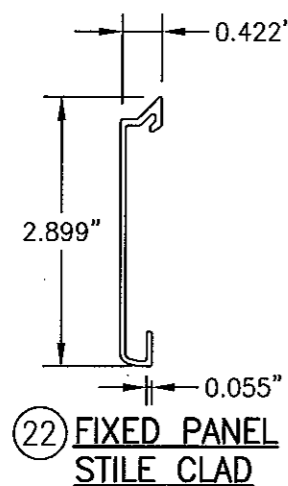
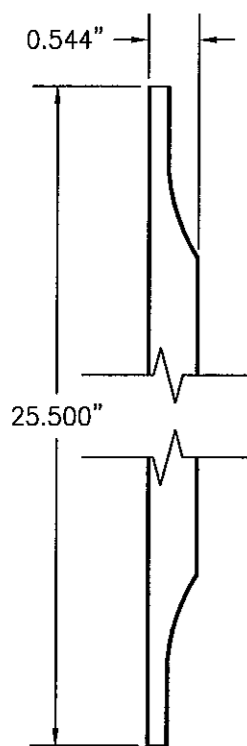


**20 FIXED PANEL
SWEEP FILLER**

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-1026.03
Expiration Date 05/03/2017
By [Signature]
Miami Date Product Control



DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 8/17/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE 8 FT. ALUMINUM CLAD WOOD IMPACT DOORS	
MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION OCT 17 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1487	REV. A
SHEET NO. 9 OF 11	



THICKNESS = 0.075"
(67) HEAD STRIKE PLATE

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 11-102603
Expiration Date 05/03/2017
By [Signature]
Miami Dade Product Control

[illegible]

DRAWING TITLE

MARVIN WINDOWS & DOORS
HIGHWAY 11; P.O. BOX 100
WARROAD, MN 56763
800-346-5044

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
7450 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418

REGISTRATION

~~SECRET~~

WARREN W. SCHAEFER, P.E.

DRAWING NO. 1487	REV A
SHEET NO. 10 OF 11	

PARTS LIST				PARTS LIST			
NO.	REF. NO.	DESCRIPTION	NOTES	NO.	REF. NO.	DESCRIPTION	NOTES
PARTS & EXTRUSIONS				FASTENERS			
1	00011397	SIDE & HEAD JAMB	*WOOD	41	-	NO. 10 X 3" PH A SMS	2 PER HEAD STRIKE PLATE
2	00014719	HINGE STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	42	-	NO. 8 X 1" AB	2 PER HEADER REINFORCEMENT PLATE
3	00033833	TOP RAIL - (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	43	-	NO. 8 X 3/8" MACHINE SCREW	2 PER HEADER REINFORCEMENT BRACKET
5	00008674	INTERMEDIATE RAIL (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	44	-	NO. 8 X 3" SMS	1 PER SHOOT BOLT GUIDE INTO PANELS
7	00030437	BOTTOM RAIL (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	45	-	NO. 8 X 1 1/4" P.H. S/STL SMS	2 1/4" FROM ENDS & MAX. 11" O.C.
9	00014580	FIXED PANEL STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	46	-	NO. 8 X 5/8" MACHINE SCREW	2 PER THRESHOLD STRIKE
10	00016785	MULL CASING BASE	*WOOD	47	-	NO. 8 X 1" AB	2 INTO STILE/RAIL; 1 INTO JAMB
11	00042535	ASRAGAL	*WOOD	48	-	NO. 10 X 1" SMS	2 PER HINGE INTO JAMB
12	00008310	ASTRIGAL CASING COVER	*WOOD	49	-	NO. 9 X 1 1/2" SMS	4 PER ADJ HINGE INTO STILE
13	00011114	THRESHOLD LINER	*WOOD	50	-	NO. 10 X 1" SMS	4 PER BUTT HINGE INTO STILE
15	00014719	LOCK STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER	51	-	NO. 8 X 3" SMS	3" FROM ENDS & MAX. 8" O.C. (ASTRAGAL)
16	00041914	PANEL STOP - FIXED PANEL	*WOOD	52	-	NO. 8 X 1 1/4" SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
17	00016403	PANEL STOP - ACTIVE	*WOOD	53	-	NO. 7 X 2" SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
18	00016573	GLAZING STOP - GLASS	*WOOD	54	-	NO. 8 X 1" TH SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
19	00007090	GLAZING STOP - RAISED PANEL	*WOOD	55	-	NO. 8 X 1 1/2" P.H. SMS	2 1/2" FROM ENDS & MAX. 9" O.C. WITH ADDITIONAL ONE AT LOCK THROW
20	00014943	FIXED PANEL SWEEP FILLER	*WOOD	56	-	1 1/2" BRAD NAIL	2" FROM ENDS & 10-12" O.C.
21	00042412	RAISED PANEL WOOD INTERIOR	MDF WITH WOOD VENEER	HARDWARE			
22	00015069	FIXED PANEL STIILE CLAD	6063-T5 ALUMINUM	57	00015469	ACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
23	00028460	TOP RAIL CLAD	6063-T5 ALUMINUM	58	00015824	INACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
24	00014631	STILE CLAD	6063-T5 ALUMINUM	59	00013771	ACTIVE DOOR 2-POINT LOCK/DEADBOLT	ASHLAND
25	00018088	BOTTOM RAIL CLAD	6063-T5 ALUMINUM	60	00013966	INACTIVE DOOR 2-POINT LOCK HARDWARE	ASHLAND
26	00013503	JAMB CLAD	6063-T5 ALUMINUM	61	00003751	4 X 4 BUTT HINGE	LAWRENCE
27	00008638	INTERMEDIATE RAIL CLAD	6063-T5 ALUMINUM	62	00003749	4 X 4 ADJUSTABLE HINGE	ASHLAND
28	00041060	CLAD RAISED PANEL (EXTERIOR)	MIC 6 ALUMINUM	63	00036080	GALVANIZED STEEL 0.050 C - CLIP	1 9/16" WIDE X 6 1/2" LONG X .050" THK. MIN. Fy = 50 KSI
29	00002625	ASTRAGAL CLAD	6063-T5 ALUMINUM	64	00027022	SS BACKER PLATE	1 AT EACH THRESHOLD STRIKE BELOW SILL
30	00002622	ASTRIGAL CLAD CLIP	6063-T5 ALUMINUM	65	00014912	GLASS REINFORCED ACETAL SILL STRIKE	1 AT EA. LOCK BAR; 1.07 X 2.82 X 0.3 THK
31	00011107	THRESHOLD (PAINTED ULTREX)	FIBERGLASS WITH MIN. Fy = 39 KSI & BEARING STRESS = 26.1 KSI	66	00014905	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. OPERATER PANEL (TOP)
32	00013508	SILL WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	67	00004621	S.S. HEAD STRIKE PLATE	1 FOR EA. LOCK BAR (HEADER)
33	00013510	ACTIVE PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	68	00026910	S.S. STILE END PLATE	1 AT EA. OPERATER PANEL (TOP AND BOTTOM)
34	00013509	FIXED PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	69	00015312	S.S. SHOOT BOLT GUIDE REINFORCEMENT	1 AT EA. OPERATER PANEL (BOTTOM)
35	00013511	FRAME WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	70	00015314	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. OPERATER PANEL (BOTTOM)
35A	00002030	MULLION COVER	6063-T5 ALUMINUM	71	00027702	S.S SILL STRIKE	1 AT EA. LOCK BAR; .250 X 2.661 X .048 THK 302 S.S.
SEALS AND SEALANTS				72	00037647	S.S. HEADER REINFORCEMENT PLATE	1 FOR EA. LOCK BAR (HEADER) 1.500 X 3.000 X .188 THK 304 S.S.
36	00005685	CONNECTING BARB	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	73	00036001	S.S. HEADER REINFORCEMENT BRACKET	1 FOR EA. LOCK BAR (HEADER) .781 x 1 x .75 THK 304 S.S.
37	00005648	WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	74	00042575	FIXED PANEL BRACKET	LOCATED PER ELEVATIONS; 1 X 3 X 1/8 THK 5052 ALUMINUM
38	00005399	WEATHERSTRIP BULB PROFILE	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	75	00011232	FIXED PANEL SILL BOLT	2 PER FIXED PANEL AT THRESHOLD
39	00013513	PANEL WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	76	00042421	RAISED PANEL RETAINER	4 PER RAISED PANEL
40	00013512	PANEL COVER WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)	77	05700044	S.S. STRIKE PLATE	1 FOR EA. LOCK BAR (SIDE JAMB)
* ALL WOOD USED WITH TESTED UNITS IS MIN. GRADE 2 WESTERN PINE. ALTERNATE WOOD SPECIES TO PINE SHALL BE MIN. GRADE 2 WITH "E" = 1200000 PSI MIN. & "G" = 0.43 MIN NOTE: ALL WOOD IS RECEIVED BY MARVIN WINDOWS & DOORS AS GRADE 2, BUT IS MACHINED BY MARVIN TO A SELECT GRADE USE.				DRAWING TITLE 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS			
DRAWN BY: W.R.M. CHECKED BY: W.W.S. PLOT: 1=2 DATE: 8/17/08				DATE BY REVISION DESCRIPTION NO.			
DATE BY REVISION DESCRIPTION NO.				MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424				DRAWING NO. 1487 REV. A SHEET NO. 11 OF 11			
CERTIFICATION OCT 17 2011 WARREN W. SCHAEFER P.E. P.E. NO. 44135				PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 11-1026.03 Expiration Date 05/03/2017 By Miami Dade Product Control			
WARREN W. SCHAEFER LICENSE No. 44135 STATE OF FLORIDA PROFESSIONAL ENGINEER							